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14. ABSTRACT After the repeal of Don't Ask, Don't Tell in September 2011, there was a renewed fervor to rid the military of one of the last perceived barriers to equality in the armed forces: a full repeal of the Combat Exclusion Policy (CEP). The influence of this pressure was evident in numerous bills introduced to Congress in May 2012 regarding the CEP and a lawsuit filed November 2012 against former Secretary of Defense, Leon Panetta. If the military exists solely to fight and win wars, then the basis for pursuing such change in military structure should center on how and why it improves military fighting efficiency and capability, not how and why it improves gender equality. The military has a moral imperative to put the best and most physically capable combatant in its combat arms MOS, primarily the infantry. From a social and political perspective, integration of females in the infantry will no doubt increase gender equality and female career enhancement; however, from a military perspective, it will decrease efficiency in infantry related close combat. As such, the current male standard for the infantry should remain unchanged.					
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Executive Summary

Title: Implications of Women in the Infantry: Will This Improve Combat Efficiency?

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Thesis: The military should make personnel changes to the combat arms Military Occupational Specialty (MOS), particularly the infantry, only if it helps increase the odds of winning – that is, improve warfighting capabilities and efficiencies.

Discussion: After the repeal of Don't Ask, Don't Tell in September 2011, a renewed pressure arose to rid the military of one of the last perceived barriers to equality in the armed forces: a full repeal of the Combat Exclusion Policy (CEP). The influence of this pressure was evident in three gender equality bills requesting a full CEP repeal that were submitted in the Senate and House of Representatives in May 2012. In November 2012, four current and former servicewomen then filed suit against then Secretary of Defense Leon Panetta, in *Heger v. Leon Panetta*, for full CEP repeal. Just under two months later, in January 2013, Leon Panetta issued a full repeal of the CEP; he also allowed the services to petition for female exclusion from any MOS currently not available to women by 2016.

The United States created its armed forces to defend the Constitution, provide for the common defense, and win wars, not to create a “profession” to promote gender equality and equal career advancement opportunities. If the military exists solely to fight and win wars, then the basis for pursuing such change in military structure should center on how and why it improves military fighting efficiency and capability, not how and why it improves gender equality. Empirical and incontrovertible evidence says that males, vice females, are biologically predisposed with the traits needed in a close combat combatant. Unlike the combat arms MOSs, engagements, battles, and wars are generally not determined by gender differences in the Disbursing or Military Police MOSs; this cannot be said about the infantry.

What separates the infantry from all other MOSs is the inherently physical and violent demands that necessitate a combatant who is as physically superior as can be. This paper will primarily discuss the physical differences between men and women regarding physical strength, endurance, and capacity. Real world evidence, numerous studies conducted by U.S. and foreign armed forces, and independent scientific research over the last 30 years has continually produced evidence that suggests that women are significantly inferior in strength, endurance, cardiovascular capacity, and vastly more prone to physical injuries and medical related problems during continued rigorous training or in austere environments. This paper attempts in no way to minimize women; rather it attempts to simply identify why the military exists, what the purpose of the infantry is, and, from primarily a biological perspective, what form of combatant is required in the infantry for the odds of continued success on the battlefield.

Conclusion: The military has a moral imperative to put the best and most physically capable combatant in its infantry units. From a social and political perspective, integration of females in the infantry will no doubt increase gender equality and female career enhancement; however, from a military perspective, it will decrease efficiency in close combat and reduce the odds of winning. Integrating women into the infantry will not improve combat efficiency. As such, the current male standard for the infantry should remain unchanged.

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

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Preface

Recent political and legal pressures, and policy decisions, upon the armed forces to allow women to serve in all combat arms Military Occupational Specialties (MOS), necessitates a review of the potential effects the recent change in the current ground Combat Exclusion Policy (CEP) could have. The subject matter of this paper is about women serving in the infantry, and it attempts to answer the question as to whether their presence will improve efficiencies and increase the odds of winning on the battlefield, especially in close combat, or will females in that branch be a detriment. *Differences* between sexes do exist. Indeed, *differences* can mean *inferior*. However, it is important to note that in no way is the term *inferior*, in this paper, meant in a derogatory manner; rather, it is important to place its key meaning in the proper context.

Many definitions of inferior exist. Merriam-Webster's dictionary indicates that *inferior* can be stated to mean *less important* or *less capable* – and both have very different interpretations. In the context of this paper, *inferior* is not meant as *less important*, rather it is meant as *less capable*. And this is not a bad thing. For analogy's sake, as a whole, women (in this paper) are described as *physically* inferior (less-capable) to men; but, conversely, as a whole, men are *constitutionally* inferior to women. Men may be physically stronger, but a woman's body is constitutionally stronger – for example, women live longer than men. Neither is a negative indictment on the other; rather, they are different – an immutable fact part of nature and biology. This paper is not meant to suggest that women are an *inferior* sex as a whole, and, therefore, incapable of serving in the military in other and more meaningful ways. Rather, it is meant to highlight the fundamental and immutable differences in the male and female sexes regarding physicality. Ultimately, it attempts to determine if the male sex is the preferred, logical, and moral choice to accomplish the infantry military mission, particularly in view of the character of tactical combat associated with that arm.

It is recognized that the topic of women in combat arms, especially the infantry, is a challenge associated with changing personal, legal, and political policy perspectives. This paper

attempts to address a few of the most relevant issues with these; however, in order to help determine if historically proven data still holds truth or has application, a comparison of data or issues during the last 20-30 years was considered in relation to information today. Since the beginning of research on this subject, several matters related to women in the military have arisen (or changed) that may have effects on women in relation to the combat arms MOS and the infantry in particular.

Of specific relevance to the Marine Corps is All Marine Corps Activities (ALMAR) 012/12 – “Assignment of Women to Ground Combat Units.” In this, the Commandant of the Marine Corps (CMC), General (Gen) James Amos, directed a comprehensive study of women who temporarily volunteer for MOSs traditionally closed to women: Artillery, Tanks, and Combat Engineer, Combat Assault, Assault Amphibian, and Low Altitude Air Defense. Additionally, women were required to conduct tests to measure their performance of a Machine Gun Lift, Casualty Extract, and March Under Load. To date, these results have not been released. Also, within this study, CMC directed that the Marine Corps Infantry Officer Course (IOC) be opened to volunteer female lieutenants, with a goal of evaluating 100 females. Two female lieutenants volunteered for the 70-day IOC class beginning September 2012. One female dropped out on the first day after she was unable to complete the introductory combat endurance test; the other female dropped out on the fourteenth day after failing to complete required training events due to unspecified medical reasons. There were zero females for the January 2013 IOC class, two for March 2013 (results pending), and five for July 2013. If the current volunteer pace continues, it could take roughly 10 years to evaluate 100 women.

Additionally, CMC, announced via ALMAR 046/12 – “Change to the Physical Fitness Test,” a change to the female Physical Fitness Test (PFT); effective 1 January 2014, pull-ups will replace the current Flexed Arm Hang. To achieve a maximum of 100 points, women must do 8 pull-ups while men’s requirement remains unchanged at 20 pull-ups. Is this change deemed necessary for better overall physical fitness, or could this be a precursor to a potential requirement for admission to traditionally closed MOSs for women? One can only speculate at this time.

The last significant change affecting the study for this paper occurred on 24 January 2013. On that date, then Secretary of Defense (SECDEF) Leon Panetta announced the full repeal of the CEP. This paves a path for women to enter all MOSs – which includes the infantry and Special Forces. The services have been given until 2016 to evaluate the impacts of sexual integration into certain MOSs and to request a waiver or exception for integration into any MOS where women are currently excluded. These waivers will be reviewed on a case-by-case basis. Despite this, the focus of this paper did not change. Rather than arguing why the CEP should be maintained, primarily for the infantry, the argument was modified as to why the CMC, by 2016, should request a waiver to keep the infantry strictly a male only MOS.

Other topics such as sexual related issues will be briefly discussed (Appendix C) to recognize the severity of this issue in the contemporary armed forces and to underscore that physical strength, endurance, and capability are not the only justifications for female exclusion from the infantry. However, other issues that bear *considerable* attention to the problems posed with women in the infantry, such as paternal instincts of men with traditional Western values, medical issues, billeting/privacy in an expeditionary environment, single parenthood, physical and emotional effects of pre-menstrual syndrome, female hygiene, pregnancy, and the draft are important to the debate; however, these are beyond the primary scope of this paper and they are left to others to address via appropriate research. Additionally, acronyms are used in this paper in order to reduce verbiage and increase readability; Appendix D lists these acronyms and is provided to assist the reader.

I would like to thank Donald F. Bittner, Ph.D., Professor Emeritus of History, for his advice and input throughout this research project. Without his contributions, it is doubtful if it would have been completed.

Lastly, and most importantly, I want to thank my wife, Kelly, and son, Justin, who sacrificed many lost weeknights and weekends that we would have otherwise spent together while I spent them in the library.

PROLOGUE: AN EMOTIONAL DEBATE

Sun Tzu stated that victory (however defined) is the main object in war.¹ This declaration, although over 2,000 years old, is still as relevant and timeless today as it was in 500 B.C. It can hardly be said that any state since then has engaged in war with an end state for anything less; however, if victory is defined as the primary object when engaged in war, then creating, training, and maintaining a military that provides a state the greatest opportunity for victory once engaged in war should become a primary peacetime objective.

However, recently within the United States, there has been a shift towards an imperative on social structuring vice functional structuring of its armed forces. Within the last 20 years, particularly, women in combat policy reviews have focused primarily on the social aspects of assignment rather than individual performance related to the functional requirements of the military.² For example, former United States Air Force (USAF) Intelligence Officer, Colonel (Col) Lorry Fenner, contends that all MOSs, including the infantry, should be opened to women, as it is commensurate with the “democratic ideals of civic responsibility and equal opportunity.”³ Many argue that women are already serving in combat and should be allowed to serve in combat arms MOSs, including the infantry; however, Col Fenner represents a more common viewpoint – focused keenly on equal opportunity – that is held very strongly by many who wish to see total integration within the military.

Regardless, it is important to recognize that women have, indeed, been serving in combat and some have been noted for their actions. For example, Army Sergeant (SGT) Leigh Ann Hester and Staff Sergeant (SSG) Timothy Nein (both MPs) were awarded Silver Stars for valorous actions while engaging the enemy in Operation Iraqi Freedom (OIF). Insurgents attacked their convoy and they engaged in a 25-minute firefight, concluding at grenade throwing range. It is noted, however, that during the firefight, SGT Hester asked SSG Nein to throw her grenade because “he had the better

arm.”⁴ Her request, although not strictly isolated to women, is illustrative of a much higher female probability due to physical inferiorities that will be addressed later. The takeaway from this and other stories of women in combat (and there are many) is that returning fire – or even dying – in a combat zone is not the same as engaging in close combat. Unfortunately, even military members perpetuate this misinformation. After the firefight, SSG Nein, with SGT Hester, stated, “We’re infantry with badges.”⁵ This could not be further from reality, and provides the uninformed (politicians, lawyers, and political action groups) a false sense that women or support units have proven the ability to do what is required of the infantry, both in training and in close combat (this will be addressed later in the paper).

Nevertheless, there are opposing viewpoints to Col Fenner’s; some women have articulated these. In an article published by the *Marine Corps Gazette*, titled, “Get Over It! We Are Not Created Equal,” Captain (Capt) Katie Petronio, United States Marine Corps (USMC) states, “As a combat-experienced Marine officer, and a female, I am here to tell you that we are not all created equal, and attempting to place females in the infantry will not improve the Marine Corps as the Nation’s force-in-readiness or improve our national security.”⁶ Capt Petronio’s perspective, based partly on her own experiences, seems to be a most common viewpoint (physical differences) for those who do not believe women should serve in the infantry – and a perspective that will be examined in this paper.

Sufficient evidence suggests that, indeed, men and women are not physically equal. The implications are clear: in the infantry, a premium is placed on sustained and superior endurance, strength, and physicality. The central purpose within this paper is about relating those physical differences to effectiveness – and whether placing women in the infantry, as Petronio suggests, is likely to decrease combat efficiency, decrease the odds of victory on the battlefield, and, by implication, decrease national security. The ramifications of such change could be significant; thus, the concept of integrating women into the infantry demands a disciplined, logical, and un-emotional

national security centered approach that avoids drawing on social, political, or ideological perspectives for conclusions or justifications. Former United States (U.S.) Army Chief of Staff General (Gen) Gordon Sullivan offered a succinct guiding principle, stating, “It is the protection of the Nation that must govern everything that we do.”⁷

Justice William Rehnquist stated in *Goldman v. Weinberger* (1986), “[w]hen evaluating whether military needs justify a particular restriction...courts must give great deference to the professional judgment of military authorities concerning the relative importance of a particular military interest.”⁸ As such, it is incumbent upon service leaders to understand the potential effects of women in the infantry and to be prepared to provide Congress with appropriate recommendations, as required. No later than January 2016, when service exceptions to the CEP are requested (if there are any), the final determination of women serving in the infantry will most likely be decided in the Courts or by politicians in Congress who largely have no understanding or appreciation for the demands of the infantry, both in combat and training. Therefore, it is obligatory that military leaders provide candid, common sense, and unbiased evidence that best supports the nation’s ability to be victorious in wars, to include the tactical battlefield, and thus, ensure national security.

The debate centers on two primary issues: personal *reason* (opinion) and valid *experience* or *evidence* (fact). As the 27th CMC, Gen Robert Barrow, advised from *experience* and *evidence* in testimony regarding the possibility of women in combat, “[i]t should not be about women’s rights, equal opportunity, [or] career assignments for enhancements for selection purposes to higher rank; it [should] most assuredly [be] about combat effectiveness.”⁹ Conversely, feminist and noted author, Erin Solaro contends with *reason*, saying, “combat exclusion — what’s left of it — should be repealed, because to do so is morally right and militarily effective.”¹⁰ Gen Barrow, an infantry officer of three wars, suggests from personal *experience* that women in the infantry will not improve effectiveness; yet, feminist Solaro advocates, with *reason*, the reverse. Who is right? Will women in the infantry improve combat efficiency? To provide an answer to the efficiency question, a review of

the character of infantry, the military's purpose, changing policy, military exclusions, physical effectiveness, and foreign armed services models (see Appendix B) will be conducted. It will be argued here that women, if integrated into the infantry, will not improve combat efficiency – and that it is *experience* and *evidence* which suggests that personal *reasoning* is misguided and misleading.

THE CHARACTER OF THE INFANTRY AT WAR

At an address to the 1879 Michigan Military Academy graduating class, General William Tecumseh Sherman warned, “War is at best barbarism...war is hell.”¹¹ Undeniably, of all human activities, war is by far the most nasty, dangerous, and most physically demanding,¹² and it is the infantry that shoulders the preponderance of this “hell.” What separates the infantry from all other MOSs is its mission. The mission of the Marine (and Army) rifle squad is “to locate, close with, and destroy the enemy by fire and maneuver, or repel the enemy's assault by fire and close combat.”¹³ While all other MOSs have a mission that could potentially place them in harm's way, to include direct combat operations, the infantry is the only MOS whose sole purpose is to aggressively seek, pursue, and attack the enemy and engage him in close, personal, and violent combat. Despite the continually changing character of war, U.S. infantry doctrine still prudently confirms that “[d]espite any technological advantages that our armed forces might have over an enemy, only close combat between ground forces gains the decision in battle.”¹⁴ Yet, contemporary commentators suggest or purposely misrepresent the character of war as changing so much that traditional symmetric battles waged with the infantry are no longer relevant. If so, then sexual integration of all MOSs (including Special Forces) should be possible because past differences of strength and endurance between the sexes are no longer relevant. However, this is not true. Unquestionably, the character of war is always changing, but the violent nature of infantry is still present in the Current Operating Environment (COE) and is doubtful to change.

Prussian military theorist, Carl Von Clausewitz suggested that the nature of war is an unchanging “trinity” of violence, policy, and uncertainty.¹⁵ Historical and present analysis of

warfighting has confirmed that the nature of war has not changed, but the way in which it will be waged – the specific character of a war – does change. USAF Gen Robert Kehler, the Commanding General of United States Strategic Command (USSTRATCOM), confirms this regarding OIF and Operation Enduring Freedom (OEF): “The characteristics that have changed...are time, distance, boundaries, symmetry and ambiguity.”¹⁶ The characteristics of recent wars have certainly changed the landscape of the battlefield, particularly regarding boundaries, symmetry, and ambiguity. Unlike the Civil War, World Wars I and II, and Korea, where the battle lines were often clear and unambiguous, and where battles were fought in a very symmetrical fashion, OIF and OEF have proven to have the opposite characteristics. Author Margaret Harrell, a proponent of the CEP repeal, supported her rationale, in part, by stating that battlefields are now characterized as “nonlinear with a 360-degree, asymmetrical AO [Area of Operations].”¹⁷ Does this mean that the requirements and employment manner of the infantry are no longer relevant, or less physically demanding as some propose? The heavy urban and mountain fighting at the tactical level by infantry forces throughout Iraq and Afghanistan would suggest otherwise.

The recent changing character of war and the use of men and women in relation to the infantry, or “infantry-like” operations, have been used as evidence that women should be allowed into the infantry. In a *Stars and Stripes* article, “Marine Raid Breaks Gender Barrier,” a Marine Corps Infantry company included attached females for a raid. In it, female Lance Corporal (LCpl) Erin Libby stated that, “[w]e’re out here, and we’re rocking on the front line,” and Corporal (Cpl) Rachel Bergstrong was quoted as saying, “[w]e’re in it as much as the grunts...”¹⁸ The inferences are that females are capable of doing what infantrymen do. However, proper context is necessary: the females in the article were part of a Female Engagement Team (FET), called away for a three-day operation from their jobs in supply, logistics, and admin to help search women and children¹⁹ - not to conduct offensive close combat, with heavy loads of ordinance organic to an infantryman, over long and sustained periods of time. They were in harm’s way, but not to function as infantry.

Simply being with or near infantrymen on the frontlines for three days does not make one capable of being an infantryman or disprove being a liability in close combat. The notion that these females, who performed a vitally important task that assisted the overall infantry mission, were “in it as much as the Grunts” does both them and infantrymen a disservice to real and perceived expectations. Certainly, the narrative and implications would be vastly different had they just returned from a 28 day operation in Fallujah, where every day they were personally engaged in exhausting, grueling, arduous, fierce, hand to hand combat. Clausewitz said that war is uncertain.²⁰ However, this basic fact means that the infantry must be ready and staffed appropriately for the worst case scenario and be capable of winning in brutal hand to hand combat – not permanently reorganized based on the COE.

Perhaps the most compelling contemporary argument for women being in the infantry is cited in Army Lieutenant Colonel (LTC) Michael Baumann’s, (ret.), book *Adjust Fire: Transforming to Win in Iraq*, in which his artillery unit was assigned an infantry-type mission for deployment. Lieutenant Commander Murdock, in his Master’s thesis supporting the repeal of the CEP, states that Baumann, who had 35 women attached to his Artillery unit (primarily for FET purposes), became a convert of women in the infantry because of the way they carried the loads and endured the heat.²¹ Interestingly, even though Baumann essentially says this in his book and also praises females for carrying M240s and the M249 without any problems, he also indicates just one page later that his troops primarily patrolled in Humvees, never walked more than two kilometers, and did not have to do “long challenging walking that is associated with infantry.”²²

Baumann goes on to say that his soldiers lived in barracks, almost always returned for “daily rest,” and that the current tactics, techniques, and procedures (TTP) in Baghdad “were accommodating to females participating in the role of infantry.”²³ He summed it up by saying, “The lines to get into light infantry units are not long for a reason; it is a damn tough living. I do not contend women can serve in that capacity yet.”²⁴ Baumann’s unit is one of only a few who had

women serve in this dynamic – women serving in “infantry-like direct combat.” However, as noted, the 360-degree battlefield is all technically “direct combat.” Clear distinctions must be made.

Baumann’s unit, assigned an “infantry-like” mission, was in direct combat; but it was not the same as what is considered the type of “direct combat” that true infantry units are tasked, organized, and trained for – brutal, sustained, close combat where a premium is placed on physical strength, endurance, and superiority. Baumann’s unit hardly qualifies as an example that women should be integrated into infantry units; in fact, it is dangerous to do so, as Murdock advocates, because it lacks significantly more qualifiers. Had Baumann’s unit been a true infantry unit where the women trained for months and even years under arduous and physical infantry conditions stateside; had his unit and women endured months of actual rugged, exhaustive, and physical close combat (the type displayed in the Battle of Fallujah); and had the evidence proven that most women held up physically through the years of this, then, perhaps, Baumann’s vignette would go much further to suggesting that women actually increase the efficiency and fighting capability of the infantry.

Indeed, other officers, even women, in a combat zone have offered advice regarding women in the infantry based upon experience or observations. After her deployment in Afghanistan Brigadier General (BGen) Loretta Reynolds, former Commanding Officer (CO) of Camp Leatherneck and current Commanding General (CG) of Marine Corps Recruit Depot (MCRD) Parris Island and Eastern Recruiting Region (ERR), offered a counter view, arriving at a starkly different conclusion to Baumann’s, as she stated, “I don’t think they [females] should close with and destroy the enemy; when you go out and see what the infantry does – the way they live, the way they train – it’s good that it’s all male.”²⁵ There are various ramifications to this.

Life in the infantry has not been all about hand-to-hand combat – but the way they live, train, and fight, indeed, makes it a “damn tough living.” Former Marine Sergeant (Sgt) Randy Smith confirmed that the nature of infantry warfare is still prevalent in today’s COE. When recounting his experience with the infantry during the initial invasion to Baghdad in 2003, Smith described

movements with 25 infantrymen crammed into 15 person vehicles. At times, Marines did not exit the vehicles for 48 hours and were forced to urinate in bottles and defecate in Meal, Ready to Eat (MRE) bags just inches from the heads of other Marines – some were even fighting dysentery. Filth and sores covered each Marine, as chemical garments were worn all day every day for over a month – without receiving a single shower. Showers were finally administered in the form of a pressure washer – each Marine was stripped nude, lined up, and hosed off in the most expedient manner.²⁶

In this vignette, the trade-off in friction and the myriad of problems for gender integration would have provided little, if any, gain in terms of combat efficiency. Adding females to this vignette would have reduced close combat efficiency and increased the amount of unneeded friction and difficulties that would have been dealt with, in terms of social issues (urinating and defecating in the presence of the other sex), medical issues, and physical issues. During testimony before the 1992 Presidential Commission, a Lieutenant Colonel and Gulf War veteran infantry commander, referring to integrating women into the infantry, stated succinctly, “This is not Olympic diving. We do not get extra credit for adding an extra degree...of difficulty.”²⁷ Simply put, the infantry in the COE is still required to operate in harsh and unsanitary conditions, and conduct physically punishing missions. This hardly suggests that the COE and current infantry employment has changed; therefore, justifying sexual integration is a proposition that is not without serious ramifications. However, being in a combat zone and supporting infantry operations in various ways are not synonymous with being permanently assigned to the infantry and all that that implies.

While the basic nature of war is constant, the means and methods evolve continuously; however, it is important to understand which aspects of war are likely to change and which are not.²⁸ One aspect that has not changed is the physical, brutal, exhausting, close combat aspect of the infantry. The infantry can and has adapted to many changes; however, at its core, it is physically violent. Clausewitz said that among the many factors in war, physical effort is the most important.²⁹ In the 21st century, this remains true for infantry related ground combat. As such, the infantry must

continue to remain capable and prepared for sustained close, personal violence. This is the primary requirement levied upon the infantry that does not exist in any other MOS. The most extreme mission – close combat or hand-to-hand combat – has not been absent during the COE.

In Iraq, Marines in Fallujah were embroiled in some of the most intense urban house-to-house, hand-to-hand combat since World War II. After just twelve days of this, only fourteen men of one Marine platoon were still standing upon withdrawal.³⁰ In his book, *House to House: An Epic Memoir of War*, Infantryman and former Army SGT David Bellavia recounts killing an insurgent with a pocketknife in Fallujah:

[I] bash his face again. Blood flows over my left hand and I lose my grip on his hair. His head snaps back against the floor. In an instant, his fists are pummeling me, I rock from his counterblows. He lands one on my injured jaw and the pain nearly blinds me. He connects with my nose, and blood and snot pour down my throat. I spit blood between my teeth and scream with him. The two of us sound like caged dogs locked in a death match. We are.³¹

In Afghanistan, accounts of brutal, hand-to-hand combat by infantrymen are no less scarce. Former Infantryman and Medal of Honor recipient, Sgt Dakota Meyer, recounted a particular ambush that devolved into hand-to-hand combat. The fierce struggle ended when he was able to reach a rock, gain the upper hand, and physically crush the insurgent's face and cave in his head with repeated blows until he died after refusing to surrender.³² Yet another well-known account of hand to hand combat involved Marine Infantryman, Navy Cross recipient, and, then Cpl, Clifford Wooldridge. Upon being ambushed on a patrol, Wooldridge became engaged in a hand-to-hand, life and death struggle with an insurgent. The fight ebbed and flowed until he finally gained the advantage, upon which he had no options available but to beat the insurgent to death with the butt stock of the insurgents weapon, leaving it shattered and broken.³³

Lastly, Army Master Sergeant (MSG) Anthony Pryor, conducting house clearing operations in Afghanistan at night, engaged with four insurgents that devolved into killing in hand to hand, eye-gouging combat – during which one insurgent broke MSG Pryor's collarbone and separated his

shoulder with a board.³⁴ During his award ceremony, his commander commented, “Think about a cold, black night; think about fighting four guys at the same time, and somebody jumps on your back and starts beating you with a board. Think about the problems you’d have to solve.”³⁵ Author Kingsley Browne adds a more salient consideration: “For an even greater challenge, think about how you’d solve those problems if you were a woman.”³⁶ These are but a few of untold accounts of close combat and hand to hand combat that exist from the wars in Iraq and Afghanistan and underscore the extreme importance of winning – and the price for losing – each individual battle at the infantry small unit level.

Critics often debate that not all military professional males would win those close combat encounters either. This is true. However, to suggest that even *some* women *might* be able to overpower their opponent and beat him to death is fundamentally misguided and a dangerous tactical proposition. As will be discussed, it has long been understood there is an approximate 10% overlap in fitness level between military men and women. But there is a monumental difference between *fitness* and *fighting* in a hand-to-hand match to the death. Although unlikely, even if there were a 10% overlap in *fighting* capability between the 90th percentile females and 10th percentile males, even the top 10% female professional boxers or mixed martial artists are not allowed to fight the lowest 10% male professional counterparts because of the inherent disadvantage and significant *danger* to a female. Civilian society recognizes the overwhelming dangers to a woman fighting a man in a professional combat *sport*, where simply out-pointing or temporarily knocking out her opponent is the only requirement. If this holds true, then it is intellectually dishonest to suggest that the dangers to a woman fighting in a professional military *death match*, where the requirement is to physically beat her male opponent into submission or to death, makes even equal, much less *greater*, sense. Even if the sexes were allowed to fight each other in combat *sport*, the relative sizes would be predetermined in attempt to make it more “fair;” in close combat *warfare*, no such luxury exists.

Nevertheless, these few vignettes are meant to elucidate that the nature of the infantry has not changed, and is unlikely to do so in the future – and that such potential fighting should be left to the physically superior male due to the dire consequences for physical weakness. Noted historian Martin van Creveld more candidly suggests that women lack the physical strength needed for fighting at close quarters and that their relative weakness could put themselves and their comrades in unjustifiable danger.³⁷ At the small unit level in the infantry, every individual battle is of utmost importance; one loss can lead to a domino effect with disastrous results. Losing even one individual engagement can lead to a chain reaction, freeing up an enemy fighter and putting everyone else at greater risk. Consequently, the infantry must maintain integrity of the strongest and most physically able-bodied men that provide the greatest chance for victory in close combat. However, this is not to mean that women are not needed in support of the infantry, COE, or in tomorrow's uncertain environment.

As noted, women have served a vital and necessary supporting role to combat arms MOSs during the COE, even those temporarily attached to infantry units. Army First Lieutenant (1LT) Ashley White was assigned to a Cultural Support Team (CST) for the purpose of engaging with and searching Afghan females – something male counterparts could but should not do. Her assignment and location at the time was, no doubt, against the intent of the CEP; however, it was unmistakably necessary for mission accomplishment. After 1LT Wright's death by a roadside bomb, her commander stated that her efforts highlighted both the importance and necessity of women on the battlefield today.³⁸ It is recognized that as the character of war changes, so must military employment fashion. Women, in today's COE and in a supporting role to the infantry, are an essential part of the mission.

THE ARMED FORCES: THE CONSTITUTION AND COURT RULINGS

When discussing women in the infantry, it is essential to provide a clear understanding of what the purpose of the United States armed forces is, why they exist, and who has the authority to

exclude particular people from certain jobs. The United States Constitution is the basis for finding the military's purpose and existence, and past Supreme Court cases provide historical support of it (see Appendix E). The Constitution states that the Congress shall raise and maintain Armies, a Navy, and a militia for the purposes of enforcing laws of the Union, suppressing insurrection, repelling invasions, and providing for the common defense.³⁹ The Constitution provides clear intent for the purpose of a military: to be prepared to fight. The Supreme Court has supported this in *United States ex rel. Toth v. Quarles* (1955) by saying that "...it is the primary business of armies and navies to fight or be ready to fight wars should the occasion arise."⁴⁰ Consequently, if the Constitution declares a mandate for the military to be prepared to fight, and if Sun Tzu's ancient maxim still holds true, the military's primary mandate in battle is victory. The implication is clear: to select the type of individuals for the armed forces or a particular MOS that provide the best chance for victory.

Congress approves the authority of the military to choose who can serve in it and who cannot. Article I, Section 8 of the Constitution mandates that Congress makes rules for the governance and regulation of the military.⁴¹ The Supreme Court, in *United States v. O'Brien* (1968), further supported this by affirming "[t]he Constitutional power of Congress to raise and support armies and to make all laws necessary and proper to that end is broad and sweeping."⁴² Pursuant to these powers, Congress is essentially given the discretion to determine the qualifications for and conditions of service within the armed services.⁴³ The Framers made it clear that the executive branch and legislative branch, through the recommendations of those in the military, should make decisions regarding military creation and governance. This is not to say, however, that the judicial branch does not play a part and that Congress can ignore the Constitution regarding military affairs.

Article III, Sections 1 & 2 of the Constitution define the powers of the judicial branch, and the Constitution provides it no specifics over the armed forces. As such, the judicial branch has adopted a policy of "deference" to military authorities and Congress concerning matters related to military efficiency. Even though the judicial branch has no constitutional authority to create laws

and regulations for the armed forces, it does have a responsibility to ensure Congress adheres closely to the Due Process Clause.⁴⁴ The Supreme Court noted in *Rostker v. Goldberg* (1981) that Congress is subject to the limitations of the Due Process Clause, but the tests and limitations to be applied may differ because of the “military context.”⁴⁵ Here, the Supreme Court acknowledges that Congress has the authority to disregard aspects of Due Process afforded citizens in favor of military efficiency.

Justice Rehnquist further reinforced military and congressional deference in his opinion in *Rostker v. Goldberg* (1981) when the Court recognized that “...in the context of Congress' authority over national defense and military affairs, and perhaps in no other area has the Court accorded Congress greater deference.”⁴⁶ The Court goes on to say that it does “not abdicate the ultimate responsibility to decide the constitutional question, but simply recognize[s] that the Constitution itself requires such deference to congressional choice.”⁴⁷ Historically, the Supreme Court has recognized its lack of constitutional authority over the armed forces; but the Courts also seem to acknowledge a key purpose for this. In *Gilligan v. Morgan* (1973), the Court stated that “[i]t would be difficult to think of a clearer example of the type of governmental action that was intended by the Constitution to be left to the political branches... an area of governmental activity in which the courts have less competence.”⁴⁸ The Court further acknowledges “the complex, subtle, and professional decisions as to the composition...of a military force are essentially professional military judgments.”⁴⁹ Therefore, it is the military leader’s judgment and recommendations that inform the decision-making process of Congress.

Having a clear understanding of why the armed forces exist and who has the authority to exclude certain people from them is a critical stone in the foundation of the debate on whether women should be placed into the infantry. Can the military legally exclude women from the infantry? Based on the powers granted to Congress by the Constitution, and based on the historical court cases that support constitutional law, it is clear that exclusions can be legal if Congress concludes they are necessary for military efficiency. This is supported in the Court’s decision in

Parker v. Levy (1974), when the Court stated, “[w]hile the members of the military are not excluded from the protection granted by the First Amendment, the different character of the military community and of the military mission requires a different application of those protections.”⁵⁰ This is not to say that the military and Congress have free reign to circumvent all Constitutional rights, but when it comes to military assignments the Courts have recognized that the needs of the military take precedence over all other considerations, including the career prospects of the individual.⁵¹

While it is important to highlight what is *in* the Constitution, it is almost as important to note what is *not* in the Constitution. The Constitution makes no reference, provision, or mandate for Congress to create a military for the purpose of job creation, career progression, or equal opportunity. One essential and basic fact exists: the primary purpose of the U.S. armed forces is to provide for the common defense – to fight and win – not to redress perceived social and sexual inequalities in our society.⁵² However, the policies governing the armed forces are quickly changing that are putting this mandate in jeopardy.

U.S. POLICY POSITIONS: CHANGING

The most common justifications for proponents of women’s integration into combat and the infantry are those of equal opportunity or civic rights. As Erin Solaro, asserts, it is about “...the last great barrier to women’s full equality of citizenship [and] equal participation in the common defense...”⁵³ However, as described previously in *Parker v. Levy* (1974), no one, regardless of gender, has a *right* to serve in the military.⁵⁴ The Presidential Commission of 1992 reiterated this, finding that “[i]n combat training and in war, an individual’s desires, interests, or career aspirations are totally subordinated to the accomplishment of the military mission.”⁵⁵ Nevertheless, this belief has slowly eroded. Indeed, the political pressures on the armed services to increase the participation in all MOSs continue to grow,⁵⁶ especially in light of how women are being used on the battlefield in the COE (see Appendix A for a timeline of women’s expanding service in the armed forces).

Such pressures on the legislative and judicial branches have been continuous, even after seemingly every possible position available has been opened to women that provides a like balance of equality and military efficiency. However, the one major exclusion that existed – the CEP – was repealed in January 2013 after a recent barrage of political and legal pressures.

On 15 March 2011 the Military Leadership Diversity Commission (MLDC), commissioned by Congress's National Defense Authorization Act (NDAA) of 2009, released its report *From Representation to Inclusion: Diversity Leadership for the 21st Century Military*. The Commission's charter was to "conduct a comprehensive evaluation and assessment of policies that provide[s] opportunities for the promotion and advancement of minority members...."⁵⁷ However, there was no regard as to how any recommended changes would affect military fighting efficiency – especially in the combat arms MOS. "Recommendation #9" suggested that Congress eliminate combat exclusion policies for women⁵⁸ because it was viewed that the policy was "...a structural barrier whose removal could help improve both the career advancement potential of qualified women and, ultimately, the demographic diversity of senior leaders."⁵⁹ Even granted this, the key question remains: does this enhance combat efficiency? It appears the MLDC did not consider this.

However, the Commission did consider unanticipated effects from rescinding the CEP. Incredibly, the sole consideration was on how such a policy change would affect *women's enlisted recruiting*.⁶⁰ The recommendation was also made to remove the CEP because it was made when there was "conventional warfare and well-defined, linear battlefields."⁶¹ This assessment disregards the other characteristics of brutal, offensive, and, at times, hand-to-hand warfare in the COE; thus, whether, for the infantry, the tactical battlefield is linear or circular, symmetrical or asymmetrical, is irrelevant. As such, permanently changing sexual integration policy based on select evolving characteristics of a present war for career enhancement opportunities is a dangerous proposition.

A more recent multi-pronged approach, via judicial and legislative channels, that influenced the repeal of the CEP was introduced to Congress. In the legislative branch, three "separate" bills

were introduced to Congress in short succession. *H.R. 1928: Women's Fair and Equal Right to Military Service Act* was introduced May 2011, and *S. 3182: Gender Equality in Combat*, and *H.R. 5792: Gender Equality Combat Act* were introduced to Congress in May 2012, respectively.⁶² All three bills were titled differently, but the issues were exactly the same – a request to immediately repeal the CEP for equality purposes.

The most recent, and arguably successful, attempt to repeal the CEP was on the judicial side. On behalf of four former and current servicewomen, the American Civil Liberties Union (ACLU) filed a lawsuit against the former SECDEF, Leon Panetta, on 27 November 2012. *Heger v. LEON PANETTA* requested that the courts declare that the Department of Defense's (DoD) CEP was unconstitutional and violated the plaintiffs' rights to equal protection of the laws under the Due Process Clause; and to enjoin the DoD from enforcing the CEP in the future.⁶³

The MLDC, the three bills, and the lawsuit did not offer any reasoning or evidence suggesting lifting the CEP would provide an improvement in the combat fighting effectiveness of the military. In fact, the aim of the MLDC (which fairly represents the aims of the bills and lawsuit) was expressly stated as just the opposite. The goal was to find ways for women to "...effectively compete for the highest ranks in the military"⁶⁴ because promotions have been limited due to non-combat roles. These recent political and legal actions, which had a significant impact on the repeal of the CEP, still bear important consideration regarding armed forces ramifications. A primary concern about the CEP being repealed was that it would force integration of women into the infantry. This is exactly what has been proposed.

Despite exhaustive evidence that already exists, Chairman of the Joint Chiefs of Staff (CJCS), Army General (GEN) Martin Dempsey, stated on 25 January 13 (regarding the repeal of the CEP) that the burden of proof is on the military to prove why women should not be in the infantry.⁶⁵ However, the rational proof against women in close combat has been plainly present throughout history and is still present today (see Appendix B for additional detailed analysis of historical and

contemporary uses of women in close combat worldwide), and the evidence for physical proof over the last 30 years is clear: as Kathleen Parker has noted, every objective study has argued against women in close combat for reasons that have not changed.⁶⁶ The real question is whether emotional or political *reasoning* for societal equality will override the readily available *evidence* and *experience*. Nevertheless, if the primary reason the military exists is to provide for the common defense – to fight and win – in as efficient a way as possible, then exclusions of many types of men and women are authorized and must be made to achieve this mandate.

MILITARY EXCLUSIONS: A NECESSITY BASED ON EFFICIENCY

Critics of excluding women from the infantry argue that it is unfair or even a violation of a woman's constitutional rights, according to the Fifth or Fourteenth Amendments.⁶⁷ However, the military already denies (excludes) many in the population the opportunities to serve on the grounds of age, aptitude, dependency status, education, and moral character.⁶⁸ It is clear that the armed forces, with approval from Congress, does not have to adhere to all rights granted to a U.S. citizen. Indeed, the Supreme Court has gone so far as to recognize the military as a separate society in *Parker v. Levy* (1974). The Court's view is that military society, as a whole, is separate from civilian society, meaning the Constitution does not apply in every respect and in the very same way it does to the rest of society.⁶⁹ Consequently, denying one the opportunity to serve in the military based on aptitude, age, and even gender, are, at times, necessary and lawful for military efficiency.

The Marine Corps, as do other services, has a minimum mental standard for service admittance. The Armed Forces Qualification Test (AFQT) is used to determine one's mental aptitude to serve in the military. There are eight aptitude categories and subcategories, ranging from Category I (high) to Category V (low); Category V recruits are labeled "not trainable"⁷⁰ due to the counterproductive nature it would take to bring them to acceptable standards and keep them there. Therefore, persons who score in AFQT Category V (below the nation's 10th percentile) are ineligible to enlist.⁷¹ More applicably, the military excludes citizens the opportunity to serve their country

based on age. Any persons who are under the age of 17 or over the age of 42, by current regulations and law, are not eligible for service in the military – *they cannot even try*.⁷² Hence, women are not the only part of society that is excluded from military service or kept from even *trying* for a part of it. In fact, based on the two examples listed, many men are excluded from service. These exclusions recognize that the *projected incapability* of the vast majority in that group overrides the *actual capability* of the potential few; thus, through selective exclusion, military efficiency is optimized.

The Courts recognize that there is a special military context that deems exclusions necessary to military efficiency. What is important to these exclusions is to understand why they exist. The current selective exclusions based on mental aptitude, age, and gender exist solely on projected capability. It is theoretically possible that someone who scores below the 10th percentile nationally on the AFQT could have a successful military career. It is also realistic to believe that a person who is over the age of 42 could have a solid and medically uneventful career. Furthermore, it is hypothetically conceivable that there are a small percentage of women who could withstand the continual rigors of infantry training and, as an infantryman, endure the rigors of sustained combat to include survival in hand to hand combat. However, these probabilities are incredibly small.

It is apparent that the military establishes these standards and ensuing exclusions because the overwhelming evidence suggests the projected capability of such person below the set standard, if lowered or rescinded, would decrease military efficiency. The return on the investment in terms of time, money, and risk becomes negative rather than positive. The standards exist because the problem lies in not knowing, beforehand, which person would or could be an exception to the rule or standard. The only way to find out who would succeed or not would be to let everyone enter, and observe over time who has what it takes and who does not. Would this be an efficient use of time and resources? The exclusion rules are not meant to indicate that absolutely no one below the minimum standard cannot succeed; rather, they exist to indicate that the amount of additional time and effort needed to find the relatively few who can succeed and then keep them at a sustainable

level, is in reality reducing efficiency. At some point a minimum or maximum standard, with no exceptions, must be made. The minimum mental aptitude standard is the 10th percentile and the maximum age standard is 42 – and these exclusions are accepted as necessary. So too, should the infantry minimum male standard. Until incontrovertible data can prove that deviating from this standard will actually improve efficiency, vice lowering it, the current infantry exclusion standard should remain the same.

EFFECTIVENESS: PHYSICAL AND TRAINING ISSUES

Recent and current policy reviews or litigation have been focused primarily on the societal aspects for shaping the military in general – and the combat arms MOS specifically – vice being focused on the physical or practical requirements. More succinctly, the focus has been on whether the military *looks* correctly, rather than whether it *operates* correctly. In the infantry, what operates best – the male – should be the standard. As will be evident, biology (augmented by culture) militates against a strongly feminine role in areas traditionally regarded as male preserves.⁷³

From a practical standpoint, women are at an immutable physiological disadvantage. The male physical advantages are genetic – and no amount of physical conditioning will change that.⁷⁴ Men and women differ greatly in strength, cardiovascular capacity, height and weight, bone mass, oxygen-carrying hemoglobin, and hormones – namely testosterone.⁷⁵ Society's social sports structure confirms this physical disparity. Every professional combat sport is completely sexually segregated, along with almost every other competitive sport as low as the high school level. This is, as syndicated Columnist Charles Krauthammer observed, "because if the women were to compete with the men they would not have a chance...[t]he differences are clearly not a matter of discrimination or prejudice. They are a simple physical fact."⁷⁶ Consequently, one would think that close combat, where physical superiority determines *life or death* instead of awards, promotability, or civic equality, should be even *more* zealously segregated than societal sports. As Kingsley Browne notes, "One must question a system that rigorously segregates the sexes in sports but is willing to

integrate them in the military where the stakes are so much higher...only in combat, it seems, will the demands on the sexes be equal.”⁷⁷

It has also been shown that young men are reluctant to participate in mixed-gender sports because the level of competitiveness falls when women are included – maintaining the competitive edge is a masculine necessity.⁷⁸ However, in the infantry, maintaining the competitive edge and physical superiority over an enemy is not just a masculine necessity; it is an absolute military mandate. As will be highlighted, recent military studies indicate that gender-mixed training has a negative effect on overall unit capability, especially in regards to cardiovascular capacity.

In almost all military activities, maximum individual effort is expected. This is most certainly true in physical related training within the infantry, especially at the small unit level. A common problem posed with mixed-gender small unit training is that physical intensity is often limited to the least capable member. A U.S. Army’s (USA) Research Institute for Behavioral and Social Sciences study (2008) found that men’s physical performance dropped when in a mixed-gender unit compared to their all-male unit counterparts.⁷⁹ The British Army later reinforced these findings in a 2009 study. In that study, it was determined that men in a mixed-gender unit had significantly lower cardiovascular conditioning compared to their counterparts in an all-male platoon; whereas, the females in the mixed-gender platoons had the *same* level of cardiovascular conditioning as their counterparts in an all-female platoon.⁸⁰

A crucial result of both studies is profound. The men actually *declined* in cardiovascular capacity when placed with women; and, as noted in the British study, women actually showed no appreciable difference in benefit when placed with *either* group. This pattern is unlikely unique to only Britain and the U.S.; rather, it is most likely universal since the average woman has roughly the same aerobic capacity as a 50 year old man.⁸¹ The implication is that small unit efficiency decreases in mixed-gender units because men are not as physically challenged – meaning they cannot push themselves to their maximum limits; thus, performance actually declines.

Part of the reason men are cardiovascularly superior is because of physiology that cannot be changed. Author William Gregor, LTC, USA (ret.), examined over 74,000 exceptionally fit Army Reserve Officer's Training Course (ROTC) cadets from 1992-2009. The cadets were tested on the VO₂ max (V - volume, O₂ – oxygen, max – maximum), which is the capacity for maximal oxygen consumption in one minute. The results determined that women reach that maximal oxygen consumption significantly faster than men. During this 17-year period, he noted that when testing the VO₂ max, only a few women bested the bottom 16% of men – an average of 1 per 1,000, and not a single female achieved the male mean.⁸² During times of extreme duress such as hand to hand combat or long marches where the loads are the same on both sexes, whoever is working at a lower percentage of their VO₂ max will perform more efficiently and be able to endure for longer periods of time.⁸³ Aside from having predominantly larger lung size and capacity, men produce testosterone, a natural steroid, at a rate of 20 times more a day than women.⁸⁴ Testosterone is responsible for carrying oxygen producing red blood cells, allowing greater endurance.⁸⁵ The male has a distinct biological advantage, and no amount of training can close this inherent biological gender inferiority gap in women.

Testosterone is the primary hormone responsible for the gap with women in strength, size, and body fat. On average, U.S. military females are 4.8 inches shorter, 31.7 pounds lighter, have 37.4 pounds less muscle mass, and have 5.7 pounds more fat mass.⁸⁶ Strength and muscle mass are of supreme importance in close combat – and that is the gap in gender that is the greatest. Testosterone increases muscle mass and muscle tissue.⁸⁷ No matter how much training occurs, women are limited in growth because their bodies cannot facilitate it in the way it is facilitated in men; simply stated, they cannot close the gap. In fact, according to a West Point study in the 1980's, an equally sized male and female, when trained to their respective peak capacity, the male actually *increases* his comparative physical superiority.⁸⁸ A 1997 U.S. Army "heavy physical training study," conducted over 24 weeks with strictly female volunteers, determined that although an improvement

of 50% was made collectively, they only averaged an increase in .9 kilograms of muscle mass.⁸⁹ The evidence is clear with this minuscule improvement in muscle mass: when at a biological hormone disadvantage, no natural training can overcome it – and in close combat, the consequences for physical inferiority are severe, often immediate and terminal.

A 2003 U.S. Army study indicated that the dismounted infantryman continues to be overburdened with weight while conducting modern combat operations.⁹⁰ Because of this, the implications in the differences with women and men in size and strength are significant. The 1992 Presidential Commission revealed the average military woman is roughly 128 pounds and the average male is 160 pounds;⁹¹ thus, the equal load required to be carried is disproportionately greater on the female. According to the U.S. Army Center for Army Lessons Learned, the rifleman's Average Fighting Load (AFL) in Afghanistan is 63 pounds and Average Emergency Approach March Load (AEAML) is 127.34 pounds⁹² – both 39.3% and 79.5% of the average man's bodyweight. For a more profound comparison, an M240B Machine Gunner's AFL is 81.38 pounds and a 60mm Mortar Section Leader's AEAML is 149.3 pounds.⁹³ This would equate to the average female carrying an astounding 63.5% to 116.6% of her weight while being physiologically predisposed to being physically weaker, having less bone mass and much higher stress fracture rates, and having less endurance capability in comparison to a male counterpart.

Critics might counter that to avoid such a dilemma, the female could still be in the infantry but not as a Mortarman or M240B Machine Gunner; she could serve in a different role, such as a basic infantryman. However, this is unacceptable as each individual must be interchangeable at the small unit level (not to mention fundamentally unfair and unequal, as men do not get this option – which leads to inevitable cohesion issues). In the same load carriage study, another factor arose: women walk with a shorter stride and take more steps than men. As the loads increased, women's stride length decreased, yet the men's stayed the same; this equated to a pronounced increase in the time that both feet were on the ground (double the load support time) compared to men.⁹⁴ Injuries

and exhaustion thus come generally more quickly to a female. However, this is not to say that some women are not capable of testing at the same level as some men.

As Gregor's 17-year study and other long-term studies note, there are some women who do overlap in capabilities with men. The average overlap in combined strength, speed, and endurance is consistently identified at roughly 10% – the strongest 10% of women test out to the weakest 10% of men.⁹⁵ At first glance, this would appear that 10% of women could compete equally with 10% of men. However, this is not likely – the *score* may be the same, but the *capacity* is still very different. A woman at the 90th percentile of her gender is essentially at the maximum of her physical capacity. Conversely, a male who is in the 10th percentile of his gender is nowhere near his maximum capacity. The inference is that, when administering an increased conditioning program over time to a 90th percentile military female and a 10th percentile military male, the male will eventually exceed the female in physical capacity. However, as indicated, when placed together, the male's ability to *achieve* his highest capacity is greatly diminished. This makes the male a more efficient choice for close combat because it takes *less* to achieve *greater* results. Other studies confirms this.

Conversely, the Army's "heavy physical training" study did note improvements in female physical capability. Results indicated that the women had a roughly 50% improvement in qualifications to do "heavy lift" jobs.⁹⁶ This was the result of a "higher than average intensity" program administered for 24 *straight* weeks. Advocates for women in combat arms, such as Solaro, cite this study to prove women are just as capable as men, physically, and that greater physically trained and fit women will suffer fewer injuries.⁹⁷ However, the very study she cites contradicts her conclusion and is a very important piece of the physical capability and efficiency debate:

It is apparent that the higher the intensity at which people exercise, the more likely they are to become injured, most likely because of the higher musculo-skeletal forces involved. Therefore, a woman strengthened to 95% of her physical potential, who works continually at that level, is more likely to be injured than a larger male who is trained to only 70% of his potential and can adequately perform his job at that level. Thus, even when women are brought up to high

levels of physical capability, they can be expected to suffer more injuries on average than males when performing physically demanding military tasks, even if they can perform such work at the required level.⁹⁸

In 2002, the British Army conducted a similar study with comparable findings:

Among male recruits overuse injury patterns changes little, but female recruits displayed a far greater tendency to overuse injury when trained under gender-free principles. The proportion of female recruits medically discharged because of overuse injury rose from 4.6 to 11.1, whereas the proportion of such males remained at under 1.5.⁹⁹

Citing the results of the Army's "heavy physical training" study, Solaro confidently declares that "women are not weak...female weakness is a myth."¹⁰⁰ However, the relevance of the study is not about the *results*, but the *process*. The summary of the study is that it took 24 *straight* weeks of specialized, intensive, above average physical training just to improve women's physical capacity to a level still far below the average man. However, once continuous specialized physical training ceases, the body reverts back to its natural tendency – in other words, the results are not sustainable and are actually unrealistic. As such, females entering the infantry would be of "normal" fitness and would suffer significantly higher injury and attrition rates. In reality, no unit can afford to dedicate such exhaustive and specialized training efforts for their requisite improvements. It is simply too cost prohibitive in money, time, and lives that make such a limited return not worth pursuing.

Smaller bone mass and lower bone density in women, compared to men, are other causal factors in higher injury rates; women are operating at the upper limits of their natural biological capacity while men are not. Even if equal physical strength and fitness were achieved, the female bone structure is still problematic. As noted, undersized women in infantry training or combat would be expected to carry the same load and physical burden as men. This naturally leads to higher injury rates. During regular training, women suffer injuries at twice the rate men do and they suffer stress fracture injuries at a rate of 4.71 times greater than male counterparts.¹⁰¹ These problems are a result of less bone mass and density, and they can be expected to increase disproportionately with that of

men as bone mass and density in women decreases at an earlier age.¹⁰² Again, no training can overcome this gap with men.

Another way to gauge prospective injury rates on women are long term studies. However, longer female studies that simulate the rigors of infantry life are scarce. The Marine Corps' Officer Candidate School (OCS) and The Basic School (TBS) (three and six months, respectively) can provide a reasonable comparison, as the women on average are much more physically fit related to their gender's population. Also, at OCS and TBS, they generally do what the men do – particularly marches under load and running (although they do not run with men). The statistics are telling. In 2011, the female attrition rate for physical injuries compared to the males was 14% to 4%, respectively – a 3.5 times higher rate.¹⁰³ At TBS that year, the comparable female physical attrition rate was even greater at 5% to 1%, respectively – a five times higher rate.¹⁰⁴ One can reasonably predict similar, if not greater attrition rates in the infantry MOS. Additionally, peacetime training statistics or projected direct combat statistics are not the only relevant considerations. A 2010 Army study done on a Brigade Combat Team (BCT) in Iraq (in a non-combat role) noted that women were evacuated at twice the rate of men, and that musculoskeletal injuries (50.4%) accounted for over half of the women being sent home.¹⁰⁵ With women already having a non-deployability rate *three times* higher than men, the collective numbers can be compelling.¹⁰⁶ Would these statistics not only replicate themselves in the infantry, but also increase in actual combat or close combat operations?

The only way to ascertain which females are capable of not only passing an initial test, but also capable of long term durability on par with even the lowest 10% of men, is to allow all females to enter the infantry MOS. The current plan is to test male and female Marines with physically demanding tasks during the summer of 2013, which will then be correlated to their performance scores on the PFT and Combat Fitness Test (CFT).¹⁰⁷ This will serve as a guide to “develop a physical test that will serve as a predictive mechanism ...to measure whether or not an applicant, regardless of gender, has the physical ability or future capacity to successfully accomplish the

physical demanding tasks required of an MOS.”¹⁰⁸ However, just doing an initial test conducted over the course of an hour or two will not produce sufficient predictive evidence of future capacity and efficiency – and this is exactly what the Marine Corps is proposing to do. Perhaps the most important statement, and the point largely argued in this paper, is the term “future capacity.” Indeed, many women could pass an initial test, as indicated by the 10% overlap. However, this short-term standard of “proof” will bear misleading results. Longer-term studies, which already exist, should be the barometer – and they are telling. They show a pattern that should not be ignored – a pattern that demonstrates significantly higher non-deployability rates, injury rates, and lower *future capacity* rates that will be counterproductive, inefficient, and will not prepare males, females, or the infantry units to best maximize capabilities and requirements.

Perhaps author and Vietnam veteran Jeff Tuten, LTC, USA (ret.) most accurately explains the need for the most physically capable personnel in the infantry. As he wrote, “The exclusion of women from front-line ground combat is mandated by their lesser physical capabilities. This exclusion is not based upon any gallant desire to shield women from the horrors of war. Rather it is dictated by the requirement to win.”¹⁰⁹ If the concern is how the infantry *performs*, vice how it *looks*, then the current male standard is the necessary requirement to win.

CONCLUSION

To date, there is little to no evidence that suggests combat efficiency will improve if women are placed in close combat scenarios. Although aspects of the character of war are changing and essentially will continue to, the unique, physical, and demanding requirements of the infantry will not be altered. Even if the infantry is not currently used in a consistent force on force scenario as in past wars, the infantry must always be prepared to do so at a moment’s notice. Contrary to Senator Carl Levin’s recent CEP repeal assertion that “[women in combat units] reflects the reality of 21st century military operations,”¹¹⁰ the changing character of warfare during a current conflict does not justify permanently altering integration policy within the infantry. *Service in a combat zone and in support*

of the infantry is not the same as being in the infantry – thus Senator Levin’s comment is an erroneous assertion. As Marine Lieutenant General Robert Milstead warns, “Working out of a FOB and doing COIN operations is totally different than having two battalions up and one back moving north up the Korean Peninsula...you can’t translate that warfare to this warfare.”¹¹¹ In a recent *Washington Post* article titled, “First Female General to Lead Parris Island Marine Base Says Women Can Handle Combat,” BGen Loretta Reynolds stated, “[J]ust use the talent that they have. Just use it where they need it...[i]t’s not all kicking down doors. It’s a lot about ensuring the security of the locals. It’s a lot of the counter-insurgency missions.”¹¹² She supports an added role for women in combat, roles such in FETs, CSTs, and other unique missions in a COIN environment. However, she is clearly maintaining her previous position, and the position presented in this paper, that women should be in combat, just not the infantry – and there is a significant difference between the two. As Reynolds and Milstead allude to, the character of the 21st century warfare is changing; the inherent nature of infantry warfare is not.

Moreover, officially implementing the recent removal of the CEP with requested caveats – such as a male-only infantry – could meet the needs of the infantry today yet still keep it properly organized for tomorrow’s unknown requirements that may come without a moment’s notice (as BGen Reynolds alludes to). Allowing commanders the flexibility to *temporarily* attach women, as part of CSTs or FETs, to the infantry, without *permanently* assigning them the infantry MOS, would serve at least five purposes. First, it would allow accomplishment of a unique female requirement (such as female interaction and searching). Second, it would ensure that women are not used or relied upon for close combat fighting. Third, it would put women in positions to physically succeed while reducing their exposure to significantly higher physical injury rates and thus, maximize their length and quality of careers. Fourth, it would prevent permanent MOS assignments (justified solely on the COE) from becoming an irreversible *fait accompli*, thus, avoiding risking an infantry mission in a future operating environment that may require more sustained close combat operations on a more

linear battlefield.¹¹³ Last, it *would* improve combat efficiency within the infantry. Attachments of females to the infantry for specific missions as needed could improve efficiencies, but permanent assignments would not.

Furthermore, contrary to the purpose of recent legislative and legal proceedings, the armed forces exist only to win wars, not to provide career-enhancing opportunities. A review of the Constitution, Congress, and Supreme Court decisions indicates that exclusions are not only allowable, but deemed a military necessity. It is also apparent through history that women are not a preferred combatant for close combat (Appendix B). Additionally, the equal opportunity driven, mixed-gender infantry model of most foreign militaries (Appendix B), based on their culture, values, and laws, does not support the U.S. Constitution's mandate to Congress: a mandate to raise and maintain armed forces, to provide for the common defense, and, if necessary, to fight – and *win*.

To achieve those ends, every opportunity must be taken by the military to *increase* effectiveness, not *reduce* it. Substantial evidence suggests that females are at a significant physical disadvantage when tasked with close combat training, actual close combat, and hand-to-hand combat. No other activity puts those who are physically not strong at so great a disadvantage as does fighting where the penalty for failure is both immediate and terminal.¹¹⁴ The male is the superior physical weapon choice in such combat. Just as an M-4 is considered a battlefield weapon, it can be argued that each human is a battlefield weapon. Changes to *battlefield* weaponry are only made when it is deemed that another weapon will improve fighting efficiency. In today's infantry, it would be inconceivable to replace the standard M-4 with an inferior and less efficient M-9; likewise, just based on physical precedence alone, it would be equally inconceivable that replacing a male with a female in close combat will improve close combat efficiency.

Consequently, every effort must be made to put the strongest and most physically capable combatants in the infantry. Until it can be unequivocally proven otherwise, women should not be integrated into the infantry unless it is demonstrated that their presence will not degrade combat

performance and reduce combat fighting efficiency.¹¹⁵ Former SECDEF, Leon Panetta, and many others *reason* that allowing women to serve in the infantry will “strengthen the U.S. military's ability to win wars.”¹¹⁶ However, the *evidence* is rather compelling that such integration will neither improve close combat efficiency nor strengthen the military’s ability to win wars. Should women be integrated into the infantry and will they improve combat efficiency? Society will be the final arbiter and the consequences are to be determined; however, perhaps John Dickinson’s cautionary statement at the Constitutional Convention in 1787 provides the sagest advice when contemplating this issue: “Experience [or *evidence*] must be our only guide. *Reason* may mislead us.”¹¹⁷

APPENDIX A

EVOLVING HISTORY OF U.S. FEMALE COMBAT EXCLUSION

Women have been an important part of the military from the American Revolution to the wars in Iraq and Afghanistan. From being on the frontier with their soldier husbands, with some wives on regimental rolls as laundresses, their service has evolved to official members of the four armed forces, beginning primarily during World War II.

In order to free up more men for the front-line fighting during World War II, women were assigned throughout the services and across the globe in various administrative billets, plus nursing billets.¹¹⁸ The first major militarized use of women in the armed services occurred in 1942 when the Women's Army Auxiliary Corps (WAAC) was established.¹¹⁹ Just a few months later, the Navy created a similar version of the WAAC, the Women Accepted for Volunteer Emergency Service (WAVES), where women performed previously atypical duties in the aviation community such as medical professions, communications, intelligence, science, and technology.¹²⁰ Barely a month after this success, the US Army Air Force (USAAF) created the Women's Auxiliary Ferrying Service (WAFS), where commercially trained female pilots delivered USAAF trainers, light aircraft, fighters, bombers and transports from the factories.¹²¹ A year later the WAAC was renamed the Women's Army Corps (WAC), dropping the word "auxiliary,"¹²² and the Marine Corps Women's Reserve was officially established.¹²³ This widespread and successful service led to formal recognition within the armed services.

The Women's Armed Services Integration Act (WASIA), enacted in 1948, permitted women to serve as full members of the U.S. armed forces.¹²⁴ Within the Marine Corps, this act authorized 100 regular Women Marine officers, 10 warrant officers, and 1,000 enlisted women in a gradual build-up over a two-year period, with regular candidates coming from Reserve Women Marines on active duty or those with prior service not on active duty.¹²⁵ However, armed forces wide, there were significant stipulations that limited women to no more than 2% of the force,

no command over men, and restrictions from serving on Navy vessels and combat aircraft. By 1956, this Act was codified in the U.S. Code.¹²⁶ By 1973 the military saw the implementation of the all-volunteer force that provided many more opportunities for women, and by 1978 Congress amended the 1948 WASIA allowing the Navy and Marine Corps to place women on a greater number of non-combat ships.¹²⁷ However, combat exclusion was still in place regarding combat units or units that were in or supporting direct combat.

In 1988, DoD attempted to standardize the way women were assigned to units, particularly those in hostile areas. This policy became known as the “Risk Rule.” The Risk Rule closed any non-combat unit to women if the risk of direct combat or hostile fire were equal to or greater than any combat unit with which they were normally associated.¹²⁸ However, this only lasted a few years until Desert Storm/Desert Shield (Gulf War) in 1991. That war saw the deployment of over 40,000 women into a combat zone, and was arguably the watershed moment that propelled major changes to the CEP. The Risk Rule, intended to keep women out of danger zones, was shown to be ineffective as modern weaponry and tactics caused the deaths and capture of female soldiers.¹²⁹ By 1992, the NDAA revoked the prohibition of women on combat aircraft and directed a Presidential Commission on the Assignment of Women in the Armed Forces.¹³⁰

In 1993, the then SECDEF, Les Aspin, rescinded the prohibition on women on combat aircraft and ships. Since it was deemed that everyone had been at risk in the Gulf War, the Risk Rule was withdrawn and replaced with a “direct ground combat exclusion” for women below the Brigade level.¹³¹ The “direct ground combat rule,” essentially the other half of the CEP, remained unchallenged until the wars in Iraq and Afghanistan.

During the war in Iraq, the Army began restructuring into more expeditionary forces called BCTs. In this, the bulk of the combat force would reside. Since women are prevalent in the forward support companies, the Army avoided assigning women to direct combat units below the brigade level by assigning the support companies to the brigades.¹³² However, while with the support

companies, women found and do find themselves physically co-located with combat units while still being assigned at the brigade level; thus, before the CEP was rescinded, the Army was in *technical* compliance with policy but not in compliance with the *intent* of the policy. This is due to the character of conflict in the 21st century. Currently, as the war in Afghanistan continues to evolve, so does the assignment and placement of women on the battlefield.

APPENDIX B

HISTORICAL AND CONTEMPORARY REVIEW OF WOMEN IN COMBAT ARMS IN FOREIGN MILITARIES

Supporters of women's integration into combat arms MOSs often point to historical uses of women in combat and to modern day countries that have integrated females into the combat ranks for "integration validation." There is little debate as to whether any women have served in combat, even infantry roles, throughout history. However, utilization of women in combat over the last two centuries has been seen only in few and extraordinary cases.¹³³ When considering such history, determining *if* militaries have used women in combat is important; however, determining *why* is of greater significance.

Over time, when countries have used their women for combat, two themes emerge: national revolutions and defense of the national homeland.¹³⁴ The implications are clear: an "all hands on deck" or "last line of defense" approach required any able bodied person to help defend a revolution or protect the homeland from destruction. The employment of women as infantry snipers in the defense of the Soviet Union is a common example. By 1943, losses were so great that Soviet women had entered almost every arm of the military, including infantry, armor, and artillery.¹³⁵ During the Vietnam War, the North Vietnamese used women as sappers and, eventually, soldiers. One widely known, but unsubstantiated and dubious, Vietnamese account of an all-female guerrilla squad suggested that 11 women of Hue City defeated a U.S. battalion.¹³⁶

The historical record provides only sporadic use of women in combat. Perhaps the most famous, and only, account of women being trained and used as regular frontline combat infantry, were the Amazons of Dahomey – a West African tribe in the mid-1800's. Although very few written records exist of these Amazons, the French, who ultimately defeated them, attested to the bravery and skill of these women warriors.¹³⁷ But, the relevant topic is not so much about their *bravery* or *resolve* – after all, combat requires "strength, not just resolve to kill"¹³⁸ – but rather *why* they were

combatants at all. Author Robert Edgerton suggested that due to prior combat losses and the slave trade, men were scarce; hence, women were conscripted and had no choice but to fight.¹³⁹

Commodore Wilmot, a British Naval Officer, further corroborated this in 1863 during one of the few documented visits to that area. He noted that “[a]s war is so constant in Dahomey, there is an incessant drain on the male population...the population of all the Dohamian territory [is] at 180,000, of whom three-fourths are women and children.”¹⁴⁰ The inference is clear: the women of the Amazons served as combatants out of necessity, not because of physical equality or superiority. Had enough men been available, as Edgerton implies, the indigenous forces of Dahomey would have remained male due to physical superiority. Women’s integration into combat units has been a temporary and exceptional occasion. War and soldiering, with few substantial pre-twentieth-century exceptions, have been solely a male preference. This pattern suggests that it is too widespread and complete to have been a function of chance.¹⁴¹

However, modern times are suggesting a paradigm shift in reasoning for integrating women into combat positions for societal and ideological reasons. Israel and its Israeli Defense Force (IDF) deserve a detailed analysis, as they are often cited as the leading model that proves ‘successful’ women’s integration into the infantry. However, the touted capability and success does not conform to past or present reality. Pre- IDF, the Israeli Haganah, a paramilitary organization, experimented with women in combat roles due to manpower shortages. These shortages are a large reason why Israel, today, is the only military in the world that conscripts women by law.¹⁴² In 1947, after a mixed gender patrol of Haganah was ambushed and every member was mutilated and killed, all women were immediately removed from the combat zone.¹⁴³ From the IDF’s inception in 1948 until 2000, females were touted as an integration model, primarily because no official law barred them from frontline infantry. However, in reality, no Israeli woman was expected to take part in combat.¹⁴⁴ This all changed in 2000 when the Equality in Military Service amendment guaranteed

the right for any woman to serve in combat arms, setting the stage for the only unisex battalion in the Israeli infantry – the 33rd Light Infantry Battalion (aka, Caracal).¹⁴⁵

Since 2000, there has been an illusion that Israeli women's performance in the Caracal Battalion has been seamless and equal to men. This has not been the case. Based on doctor's recommendations due to physical inferiorities, the unisex Caracal Battalion has only been allowed to patrol (primarily in vehicles) peacetime borders with Egypt and Jordan in order to free-up the male counterparts for the more demanding combat assignments.¹⁴⁶ Women have not been assigned to the other half of the combat arms such as the heavy infantry, armored corps, or engineering corps,¹⁴⁷ which are principally Israel's actual combat fighting units. Consequently, the Caracal Battalion lends a false perception of women training and serving in frontline combat infantry. Those who tout Israel's infantry integration as a success point to a single firefight on the Egyptian border in September 2012 that "proved the worth" of the Caracal Battalion.¹⁴⁸ The IDF reported it thwarted a "very big terror attack;"¹⁴⁹ however, the attack was three armed militants over open terrain. This isolated incident is proof of only good communication and marksmanship (with overwhelming manpower and firepower odds); it in no way can be used as validation that these women are capable of the physically arduous and sustained close combat demanded of frontline infantry.

Perhaps the most changed position of women in the Israeli infantry is from an Israeli General who once advocated for their integration. Major General Yiftach Ron-Tal has joined an increasing number in the IDF that objects to widening women's participation in combat roles.¹⁵⁰ He contends that since the integration in 2000, women have not performed physiologically to the established standards, with stress fractures "dozens of percentage points higher than the male counterparts."¹⁵¹ He states that such issues have reduced combat efficiency and would put the future security of the state in jeopardy with further integration.¹⁵² The warnings were there: in 2003, IDF doctors suggested combat unit integration be disallowed because medical studies showed significant female physical degradation under sustained, strenuous activities.¹⁵³ Upon closer review, it is clear that the

‘successful’ Israeli sexual integration model into the infantry is not one that should be considered and provides evidence of similar concerns for women’s possible integration into U.S. infantry units.

First, women serve in the Israeli light infantry because of manpower needs and because of an equal opportunity law, not because it is proven to improve combat efficiency. Second, women in the IDF do not train or serve in ways their true combat infantry counterparts do or even within sexually integrated combat units. Lastly, even in the limited light infantry role, combat efficiency has quantifiably declined instead of improved.

Although Israel’s sexual integration model in the infantry is arguably the most well-known, Canada’s is the most complete of foreign states. Lessons from the Canadian Forces (CF) are probably the most applicable as a potential model for the U.S. armed forces. Similar to Israel, Canada has no CEP. Its 1978 Human Rights Act forced liberal new mandates on employers nationwide.¹⁵⁴ Unlike the U.S. armed forces, the CF is seen as an employer and, as such, must abide by civilian civil rights laws. Consequently, women’s combat arms integration has nothing to do with improving combat efficiency. In fact, greater efficiency is highly dubious at the moment, as attrition rates for women in the infantry still plague the CF. However, one could have seen this coming 10 years ago. Women were allowed into the infantry in 1989, and 15 years later reports were published that the female attrition rate was almost 2.5 times greater than males.¹⁵⁵ Even for those few who initially make it into the infantry, attrition is still a major problem. Major Howard Michitsch, who led the CF gender-integration program, stated, “We can’t seem to keep them beyond eight years...there’s this wall there; that’s when they drop out.”¹⁵⁶ Perhaps the “wall” is a result of significant factors such as cumulative physical fatigue or desires to start a family – similar cost/benefit factors that are relevant to the debate in the U.S. Indeed, some CF military officials were concerned that the high cost of infantry training for women was just not worth such poor results.¹⁵⁷ They appear to have been right. As of 2011, out of a CF of 65,000, there were roughly 250 females permanently assigned in the combat arms, including the infantry.¹⁵⁸

Of additional note to the physical issues in the CF combat arms, it has had a significant increase in sexual related issues as well as problems with deferential treatment in combat. Both are very real concerns in the U.S. debate. Critics have argued that the male paternal instinct is a manufactured trait, or at least has disappeared in the face of an advanced, modern, and equal society. Evidence from the COE regarding the CF combat arms proves not only is it alive and well, but that it is real and disrupts unit cohesion and effectiveness. A senior Canadian Commander in Afghanistan during OEF stated that male colleagues consistently displayed a “counterproductive desire to protect” women by carrying their combat loads and preventing assignments to dangerous missions.¹⁵⁹ This is corroborated by both males and females in the CF. A female combat arms soldier confirmed that she was kept from patrols most likely because she had kids, and a male soldier stated that the “brother/sister protective thought” was always in his mind.¹⁶⁰ In response to repeal of the CEP in the U.S., CJCS, GEN Dempsey, said the burden of proof is on the military to provide evidence that women should not be in the infantry. It can be reasonably argued that one needs to look no further than the CF infantry. The amount of time, money, and energy put into a 24-year integration campaign has mostly produced anemic numbers, and a significant increase in extraneous and real cohesion issues has resulted in a possible *decline in overall efficiency*.

Conversely, the United Kingdom does not allow women into close combat specialties. In a report to their Secretary of State of Defense in 2009, military authorities concluded that “[t]o admit women would, therefore, involve a risk with no gains in terms of combat effectiveness to offset it.”¹⁶¹ A review of the impact on unit cohesion and physical liability determined that women would not improve combat efficiency.

Alternately, the Australia Defense Force (ADF) recently changed its policy to include women in all combat arms specialties. In 2011, the ADF Chief of the Army announced that all gender restrictions would be removed in order to enhance the Army’s foundation warfighting capability;¹⁶² in fact, it was further promulgated that the change would be “enhancing capability through gender

diversity.”¹⁶³ Verbiage such as this, actually assertions, would certainly suggest changes were made based on an improvement to combat efficiency; however, there was no supporting evidence provided. Nevertheless, in stark contrast to the Chief of Army’s assertion, the Australia Defense Minister espoused societal and political reasoning for the change rather than military efficiency, saying it was “[a] logical extension to the very strongly held view in Australian society that all of us are equal irrespective of our backgrounds and irrespective of our sex.”¹⁶⁴

Incredibly, just two years prior – in 2009, the ADFs stance on women in combat specialties was built on evidence directly to the contrary. The primary reasons for women’s exclusion from ground combat units were based on a lack of physical strength, physical power, and load carrying stamina that would produce disproportionate casualties.¹⁶⁵ So, within two years, it appears that Australian women went from being physically unequal and a greater combat liability, to achieving physical equality and unlikely to produce disproportionate combat liabilities. The implication is clear: it was societal and political *reason* (or mythology) that overrode military and scientific *evidence*. Australia’s new policy for women in combat roles is clearly based on equal opportunity, rather than combat efficiency.

Other Western countries such as Denmark, Spain, France, New Zealand, Germany, Norway, and Sweden allow women in combat roles.¹⁶⁶ All of them do so explicitly for the sake of country laws or laws handed down by the European Court of Justice that ban gender discrimination or mandate equal opportunities; none of them cite improved combat efficiency as justification (or at least show evidence). In fact, France and Germany, in order to achieve equal footing with civilian employment legislation, went so far as to purposely invalidate or play down the requirements of military jobs and impacts on effectiveness.¹⁶⁷

Thus, the key point in assessing historical and contemporary use of women in combat roles from other countries is not whether they *did* or *do* allow women in the combat arms specialty, but *why*. Without exception, every country listed that has integrated women in combat arms roles, has

done so for equal opportunity, social, or ideological reasons; some additionally cite the lack of manpower and the need for the survival of the state. For the United States, disregarding combat efficiency to mirror a foreign equal opportunity model will not create a policy or a military structure for the inherent Constitutional mandate – to maximize the chance of *winning*. In fact, it will create the opposite. As Jeff Tuten suggests, “Equal opportunity on the battlefield spells defeat...[u]nless, of course, we can get an agreement from our adversaries that our female units will only have to fight their female units.”¹⁶⁸

APPENDIX C

SEXUAL ISSUES AND COST

Although not the focus of this paper, sexual issues bear a significant amount of consideration to the infantry sexual integration debate, and its effect on unit efficiency, especially in combat. Brief topics of consideration are presented here in order to acknowledge the next most serious issue regarding the problems with sexual integration into the infantry. Sex and sexual related crimes are problems plaguing the military, and this problem is not one that is found only in garrison. Some critics suggest that when in a combat zone, these issues tend to disappear because of the mission and focus. This is far from reality. In Desert Shield/Desert Storm alone, Marine Corps mixed-gender units reported 73% consensual sexual activity between men and women.¹⁶⁹ The implication is clear: where men and women are, sex, and its associated issues, will be prevalent. In the 2010 Army BCT study done in Iraq, 35 women were sent home because of pregnancy.¹⁷⁰ Even if some of the 35 were pregnant before they deployed, that fact remains irrelevant. What is relevant is that all 35 were sent home because of pregnancy when needed in a combat zone. 35 losses are 35 losses, combat related or not. Similar *percentages* in losses can be expected in the infantry. Are these the types of losses that will be acceptable, before even engaging in battle? In an era of military downsizing and fiscal constraints, the question becomes even more relevant, especially when even more losses occur due to sex related crimes.

Consensual sex and its cohesion related effects are problematic. However, wherever men and women are, sexual crimes will occur as well – in garrison or operational areas. Unfortunately, this is an epidemic that is increasing in reporting (both in the active services and the military academies) and emotionally charged Congressional mandated responses;¹⁷¹ as such, integration of women into the infantry and combat arms is likely to further *increase* this trend although some suggest otherwise. Incredibly, it has been suggested that sexual assaults will actually *decrease* by the repeal of the CEP. In reference to the non-sexually integrated infantry MOS being labeled a “warrior

culture” and all other sexually integrated MOSs not being labeled “warriors,” CJCS, GEN Dempsey, was recently quoted in the *Marine Corps Times* as saying that “...when you have one part of the population that is designated as warriors and another part that’s designated as something else...it led to that environment (increased sexual assaults).”¹⁷² It is hard to imagine a scenario where placing women into the infantry, and giving them the same title as “warrior,” will actually lead to increased mutual respect and decreased sexual assaults; in fact, the rampant sexual assault problem in every other sexually integrated MOS in the Marine Corps indicates otherwise. Almost everyone in the military is already called a “warrior,” and sexual crimes are an epidemic in all MOSs. If leaders attach a more emphasized (and arguably meaningless) “warrior” title to women in the infantry, it is unlikely to change the perceptions on how men and women view each other, thus reducing sexual related crimes. As Brian Mitchell, a former Army infantry officer and author, opines, “Men simply cannot treat women like other men. And it’s silly to think that a few months’ training can make them into sexless soldiers.”¹⁷³

Additionally, the financial cost of sex related crimes in the DoD is staggering and, realistically, something that must be responsibly considered when relating infantry integration to efficiencies. The cost to DoD and the Department of Veterans Affairs (DVA) reaches well over a *billion* dollars annually to combat sexual related issues such as assaults, harassment, all-hands military member awareness training, civilian trained advocates, military trained advocates, flyer campaigns, lost wages, medical benefits to victims, military court costs, and so on.¹⁷⁴ Integration most certainly comes with a great personnel and financial cost to the victim and the unit – costs that neither in combat can ill afford. These highlights are only a fraction of this debate.¹⁷⁵ However, one can assume the friction and problems that are rampant in the rest of the armed forces will most certainly be duplicated in the infantry – yet another reason that suggests, when added to all the other negatives of female integration, infantry and close combat efficiency will not improve.

APPENDIX D

ACRONYMS

1LT – Army First Lieutenant
ACLU – American Civil Liberties Union
ADF – Australia Defense Force
AEAML - Average Emergency Approach March Load
AFL – Average Fighting Load
AFQT – Armed Forces Qualification Test
ALMAR – All Marine Corps Activities (message)
AO – Area of Operations
B.C. – Before Christ or Before Common Era
BCT – Brigade Combat Team
BGen – USMC Brigadier General
Capt – USMC or USAF Captain
CEP – Combat Exclusion Policy
CF – Canadian Forces
CFT – Combat Fitness Test
CG – Commanding General
CJCS – Chairman of the Joint Chiefs of Staff
CMC – Commandant of the Marine Corps
CO – Commanding Officer
COE – Current Operating Environment
COIN – Counterinsurgency Operations
Col – USMC or USAF Colonel
Cpl – USMC Corporal
CST – Cultural Support Team
D – Democrat
DoD – Department of Defense
Dstl – British Defence Science and Technology Laboratory
DVA – Department of Veterans Affairs
ERR – Eastern Recruiting Region
FET – Female Engagement Team

FOB – Forward Operating Base
GEN – Army General
Gen – USMC or USAF General
H. R. – House of Representatives
IDF – Israeli Defense Force
IOC – Infantry Officer’s Course
LCpl – USMC Lance Corporal
LTC – Army Lieutenant Colonel
MCRD – Marine Corps Recruit Depot
MLDC – Military Leadership Diversity Commission
MOS – Military Occupational Service
MP – Military Police
MRE – Meals, Ready to Eat
MSG – Army Master Sergeant
NDAA – National Defense Authorization Act
OCS – Officer Candidate School
OEF – Operations Enduring Freedom
OIF – Operation Iraqi Freedom
PFT – Physical Fitness Test
Ret. – Retired
ROTC – Reserve Officer Training Corps
S. – Senate
SECDEF – Secretary of Defense
Sgt – USMC Sergeant
SGT – Army Sergeant
SSG – Army Staff Sergeant
TBS – The Basic School
TTP – Tactics, Techniques, and Procedures
U.S. – United States
USAAF – United States Army Air Force
USA – United States Army
USAF – United States Air Force
USMC – United States Marine Corps
USSTRATCOM – United States Strategic Command

VO₂ max – V - volume, O₂ - oxygen, max - maximum

WAAC – Women's Army Auxiliary Corps

WAC – Women's Army Corps

WAFS – Women's Auxiliary Ferrying Service

WASIA – Women's Armed Service Integration Act

WAVES – Women's Accepted for Volunteer Emergency Service

APPENDIX E

ARTICLE I, SECTION 8, CLAUSES 12 – 16, U.S. CONSTITUTION

To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;

To provide and maintain a Navy;

To make Rules for the Government and Regulation of the land and naval Forces;

To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions;

To provide for organizing, arming, and disciplining, the Militia, and for governing such Part of them as may be employed in the Service of the United States, reserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress;

Source: http://www.archives.gov/exhibits/charters/constitution_transcript.html.

Notes

¹ Sun Tzu, *The Art of War*, trans. by Samuel B. Griffith (New York, NY: Oxford University Press, 1963), 73.

² William Gregor, "Why Can't Anything Be Done? Measuring Physical Readiness of Women for Military Occupations" (Paper presented at the International Biennial Conference of the Inter-University Seminar on Armed Forces and Society, October 21-23, 2011), 3-4.

³ Lorry Fenner and Marie deYoung, *Women In Combat: Civic Duty or Military Liability?* (Washington, D.C.: Georgetown University Press, 2001), 4.

⁴ Steve Fainaru, "Silver Stars Affirm One Units' Mettle," *WashingtonPost.com*, June 26, 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/06/25/AR2005062501263.html>.

⁵ Fainaru, "Silver Stars Affirm One Units' Mettle."

⁶ Katie Petronio, "Get Over It! We Are Not Created Equal," accessed February 9, 2013, <http://www.mca-marines.org/gazette/article/get-over-it-we-are-not-all-created-equal>.

⁷ Sam Nunn, "The Fundamental Principles of the Supreme Court's Jurisprudence in Military Cases," in *Evolving Military Justice*, ed. by Eugene R. Fidell and Dwight H. Sullivan (Annapolis, MD: Naval Institute Press, 2002), 4.

⁸ *Goldman v. Weinberger*, 475 U.S. 503 (1986).

⁹ "SASC Testimony.VOB," YouTube video, 16:27, General Robert H. Barrow, 27th Commandant of the Marine Corps testimony before the SASC on Women in Combat, posted by MarineDad981 March 14, 2012, <http://www.youtube.com/watch?v=fy--whDNNKk>.

¹⁰ "The Combat Exclusion," Erin Solaro, *Regarding War*, last modified March 04, 2010, <http://www.pbs.org/pov/regardingwar/conversations/women-and-war/the-combat-exclusion.php>.

¹¹ Albert Sanders and William Anderson, Jr., *Natural History Investigations in South Carolina: From Colonial Times to the Present* (Columbia, SC: University of South Carolina Press, 1999), 84.

¹² Martin Van Creveld, *Men, Women, and War: Do Women Belong in the Front Line?* (London, UK: Cassell & Co, 2001), 226.

¹³ Headquarters U.S. Marine Corps, *Marine Rifle Squad*, MCWP 3-11.2 w/Ch 1 (Washington, DC: Headquarters U.S. Marine Corps, November 27, 2002), 1-1.

¹⁴ Headquarters Department of the Army, *Infantry Platoon and Squad*, FM 7-8 w/Ch1 (Washington, DC: U.S. Department of the Army, March 1, 2001), 1-1.

¹⁵ Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1976/1984), 89.

¹⁶ Robert Kehler, "STRATCOM Perspective," *AFA.org*, February, 17, 2011, <http://www.afa.org/events/AWS/2011/postOrlando/scripts/AFA-110217-STRATCOM.pdf>.

¹⁷ Margaret Harrell, Laura Castaneda, Peter Schirmer, Bryan Hallmark, Jennifer Kavanagh, Daniel Gershwin, and Paul Steinberg, *Assessing The Assignment Policy for Army Women* (Santa Monica, CA: Rand Corporation, 2007), 139-141.

¹⁸ Sandra Jontz, "Marine Raid Breaks Gender Barrier," *Stripes.com*, last modified May 04, 2005, <http://www.stripes.com/news/marine-raid-breaks-gender-barrier-1.32752>.

¹⁹ Jontz, "Marine Raid Breaks Gender Barrier."

²⁰ Clausewitz, *On War*, 89.

²¹ Riley Murdock, "Rescinding the Ground Combat Exclusion Policy" (master's thesis, USMC Command and Staff College, 2011), 12.

²² Michael Baumann, *Adjust Fire: Transforming to Win in Iraq* (Roseville, MN: Birch Grove Publishing, 2008), 287.

-
- ²³ Baumann, *Adjust Fire: Transforming to Win in Iraq*, 287.
- ²⁴ Baumann, *Adjust Fire: Transforming to Win in Iraq*, 287-288. Underline added for emphasis.
- ²⁵ Elizabeth Bumiller, "Redefining Gender Roles in Combat," *The New York Times* (blog), last modified on May 29, 2010, <http://atwar.blogs.nytimes.com/2010/05/29/redefining-gender-roles-in-combat>.
- ²⁶ Ryan Smith, "Ryan Smith: The Reality That Awaits Women in Combat," *WallStreetJournal.com*, last modified on January 23, 2013, http://online.wsj.com/article/SB10001424127887323539804578260132111473150.html?mod=googlenews_wsj.
- ²⁷ Commission on the Assignment of Women in the Armed Forces, *Women In Combat: Report to the President* (New York, NY: Brassy's (US), 1993), 65.
- ²⁸ Headquarters U.S. Marine Corps, *Warfighting*, MCDP 1 (Washington, DC: Headquarters U.S. Marine Corps, June 30, 1991), 1, 17.
- ²⁹ Clausewitz, *On War*, 115.
- ³⁰ Patrick O'Donnell, *We Were One: Shoulder to Shoulder with the Marines Who Took Fallujah* (Cambridge, MA: Da Capo Press, 2006), I-X.
- ³¹ David Bellavia, *House to House: An Epic Memoir of War* (New York, NY: First Free Press, 2007), 262.
- ³² Dakota Meyer and Bing West, *Into the Fire: A Firsthand Account of the Most Extraordinary Battle in the Afghan War* (New York, NY: Random House Publishing Group, 2012), 144-145.
- ³³ Jim Michaels, "Man-To-Man Combat Still Key To Military Strength," *USAtoday.com*, last modified on November 10, 2012, <http://www.usatoday.com/story/news/nation/2012/11/10/marine-valor-award-veteran/1674665/>.
- ³⁴ Gregg Zoroya, "Inches Divide Life, Death In The Afghan Darkness," *USAtoday.com*, last modified no October 20, 2003, http://usatoday30.usatoday.com/news/nation/2003-10-19-silver-star-cover_x.htm.
- ³⁵ Kingsley Browne, *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation's Wars* (New York, NY: The Penguin Group, 2007), 63.
- ³⁶ Browne, *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation's Wars*, 63.
- ³⁷ Van Creveld, *Men, Women, and War: Do Women Belong in the Front Line?:* 227, paraphrased in Robert Fox, "Hoon warned that women aren't tough enough for the front line," *Telegraph.co.uk*, last modified on September 02, 2001, <http://www.telegraph.co.uk/news/uknews/1339235/Hoon-warned-that-women-arent-tough-enough-for-the-front-line.html>.
- ³⁸ Lolita Baldor, "Death Highlights Women's Role In Special Ops Teams," *Yahoo.com*, last modified on October 25, 2011, <http://news.yahoo.com/death-highlights-womens-role-special-ops-teams-195034667.html>.
- ³⁹ U.S. Const. art. I, §8, cl. 12-16.
- ⁴⁰ *United States ex rel. Toth v. Quarles*, Secretary of the Air Force, 350 U.S. 11 (1955).
- ⁴¹ U.S. Const. art. I, §8, cl. 14.
- ⁴² *United States v. O'Brien*, 391 U.S. 367 (1968).
- ⁴³ Nunn, "The Fundamental Principles of the Supreme Court's Jurisprudence in Military Cases," 10.

-
- ⁴⁴ Nunn, “The Fundamental Principles of the Supreme Court’s Jurisprudence in Military Cases,” 10.
- ⁴⁵ Rostker v. Goldberg, 453 U.S. 57 (1981).
- ⁴⁶ Rostker v. Goldberg, 453 U.S. 57 (1981).
- ⁴⁷ Rostker v. Goldberg, 453 U.S. 57 (1981).
- ⁴⁸ Gilligan v. Morgan, 413 U.S. 1 (1973).
- ⁴⁹ Gilligan v. Morgan, 413 U.S. 1 (1973). Underline added for emphasis.
- ⁵⁰ Parker v. Levy, 417 U.S. 733 (1974).
- ⁵¹ Commission on the Assignment of Women in the Armed Forces, 45.
- ⁵² Jeff Tuten, “The Argument Against Female Combatants,” in *Female Soldiers – Combatants or Noncombatants? Historical and Contemporary Perspectives*, ed. by Nancy Loring Goldman (Westport, CT: Greenwood Press, 1982), 261.
- ⁵³ Erin Solaro, *Women in the Line of Fire: What You Should Know About Women in the Military* (Emeryville, CA: Seal Press, 2006), 8.
- ⁵⁴ Parker v. Levy, 417 U.S. 733 (1974).
- ⁵⁵ Commission on the Assignment of Women in the Armed Forces, 44.
- ⁵⁶ Tuten, “The Argument Against Female Combatants,” 255.
- ⁵⁷ Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military* (Arlington, VA, 2011), vii.
- ⁵⁸ Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military*, 71.
- ⁵⁹ Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military*, 74.
- ⁶⁰ Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military*, 73.
- ⁶¹ Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military*, 72.
- ⁶² <http://www.govtrack.us/congress/bills/112/hr1928>; <http://www.govtrack.us/congress/bills/112/s3182>; <http://www.govtrack.us/congress/bills/112/hr5792>. None of the proposed bills made it out of committee before the 112th Congress concluded, and therefore, they are not available in the Library of Congress. As a result of not being passed before the 112th Congress concluded, all three would have to be resubmitted in the 113th Congress, if desired. However, with the recent repeal of the CEP, it is doubtful these bills will resurface again.
- ⁶³ Heger v. Leon Panetta, U.S. District Court for the Northern District of California, No. 12-6005, <http://jurist.org/paperchase/heger-et-al-vs-panetta.pdf>, 3.
- ⁶⁴ Military Leadership Diversity Commission, *From Representation to Inclusion: Diversity Leadership for the 21st Century Military*, 91.
- ⁶⁵ Pete Winn, “Gen. Dempsey: If Women Can’t Meet Military Standard, Pentagon Will Ask ‘Does It Really Have to Be That High?’,” *cnsnews.com*, last modified on January 25, 2013, <http://cnsnews.com/news/article/gen-dempsey-if-women-can-t-meet-military-standard-pentagon-will-ask-does-it-really-have>.
- ⁶⁶ Kathleen Parker, “Kathleen Parker: The Sirens of the Pentagon,” *washingtonpost.com*, last modified on January 29, 2013, http://www.stltoday.com/news/opinion/columns/kathleen-parker/kathleen-parker-the-sirens-of-the-pentagon/article_1e47eafe-444d-567e-9905-5fd85e860c75.html.
- ⁶⁷ The Fifth Amendment and Fourteenth Amendment both have language regarding protection of Due Process, which is a protection from government of the legal rights guaranteed in

Constitutional Law. The Fourteenth Amendment has the Equal Protection Clause, which, among other things, essentially guarantees a person from sexual discrimination. As such, critics of any policy excluding women from all military MOSs contend that such action is a violation of Due Process and of the legal right against sexual discrimination that Due Process protects.

⁶⁸ U.S. Department of Defense, *Qualification Standards for Enlistment, Appointment, and Induction*, Instruction 1304.26, September 20, 2005, 6-8.

⁶⁹ Diane Mazur, *A More Perfect Military: How the Constitution Can Make Our Military Stronger* (New York, NY: Oxford University Press, 2010), 59.

⁷⁰ Rod Powers, *ASVAB for Dummies, Premier 3rd Edition* (Hoboken, NJ: Wiley Publishing, Inc., 2011), 13.

⁷¹ U.S. Department of Defense, *Qualification Standards for Enlistment, Appointment, and Induction*, Instruction 1304.26, 8.

⁷² *National Defense Authorization Act*, U.S. code, title 10, section 505 (2006).

⁷³ Anne Moir and David Jessel, *Brain Sex* (New York, NY: Dell Publishing, 1992), 96.

⁷⁴ Tuten, "The Argument Against Female Combatants," 247.

⁷⁵ Browne, *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation's Wars*, 22.

⁷⁶ "Effects on the Military," video, 00:29, posted by *FoxNews.com*, January 24, 2013, http://archive.org/details/FOXNEWSW_20130124_230000_Special_Report_With_Bret_Baier#start/2700/end/2730.

⁷⁷ Browne, *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation's Wars*, 19-20.

⁷⁸ Moir, *Brain Sex*, 172.

⁷⁹ Ran Yanovich, Rachel Evans, Eran Israeli, Naama Constantini, Nurit Sharvit, Drorit Merkel, Yoram Epstein, And Daniel Moran, "Differences in Physical Fitness of Male and Female Recruits in Gender-Integrated Army Basic Training," *Official Journal of the American College of Sports Medicine*, Medicine & Science in Sports & Exercise (2008): S654-655, <http://search.ebscohost.com>.

⁸⁰ Sam Blacker, David Wilkinson, and Mark Rayson, "Gender Differences in the Physical Demands of British Army Recruit Training," *Military Medicine*, vol. 174 (August 2009): 814-815, <http://search.ebscohost.com>.

⁸¹ Commission on the Assignment of Women in the Armed Forces, C-42.

⁸² William Gregor, "Why Can't Anything Be Done? Measuring Physical Readiness of Women for Military Occupations," Paper presented at the International Biennial Conference of the Inter-University Seminar on Armed Forces and Society, (October 21-23, 2011), 23.

⁸³ Commission on the Assignment of Women in the Armed Forces, C-5.

⁸⁴ Jean Jenkins, "High Testosterone Levels in Women," *LiveStrong.com*, last modified on June 14, 2011, <http://www.livestrong.com/article/271309-high-testosterone-levels-in-women>.

⁸⁵ Moir, *Brain Sex*, 69.

⁸⁶ Commission on the Assignment of Women in the Armed Forces, C-3.

⁸⁷ Browne, *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation's Wars*, 21.

⁸⁸ Tuten, "The Argument Against Female Combatants," 248.

⁸⁹ Everett Harman, Peter Frykman, Christopher Palmer, Eric Lammi, Katy Reynolds, and Verne Backus, "Effects of a Specifically Designed Physical Conditioning Program on the Load Carriage and Lifting Performance of Female Soldiers," U.S. Army Research Institute of Environmental Medicine, technical report no. T98-1 (Natick, MA, 1997): 46, <http://stinet.dtic.mil>.

-
- ⁹⁰ U.S. Army Center for Lessons Learned, “The Modern Warrior’s Combat Load: Dismounted Operations in Afghanistan, April – May, 2003” (December 2003), 2.
- ⁹¹ Commission on the Assignment of Women in the Armed Forces, C-3.
- ⁹² U.S. Army Center for Lessons Learned, “The Modern Warrior’s Combat Load,” 18.
- ⁹³ U.S. Army Center for Lessons Learned, “The Modern Warrior’s Combat Load,” 31, 65.
- ⁹⁴ U.S. Army Center for Lessons Learned, “The Modern Warrior’s Combat Load,” 31.
- ⁹⁵ Browne, *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation’s Wars*, 22; Commission on the Assignment of Women in the Armed Forces, C-4, C-8.
- ⁹⁶ Harman, “Effects of a Specifically Designed Physical Conditioning Program on the Load Carriage and Lifting Performance of Female Soldiers,” 1.
- ⁹⁷ Solaro, *Women in the Line of Fire*, 268-270.
- ⁹⁸ Harman, “Effects of a Specifically Designed Physical Conditioning Program on the Load Carriage and Lifting Performance of Female Soldiers,” 75-76.
- ⁹⁹ Ian Gemmell, “Injuries among female army recruits: a conflict of legislation,” *Journal of the Royal Society of Medicine*, vol. 95 no. 1 (January 2002), <http://jrsm.rsmjournals.com/content/95/1/23.full.pdf+html,%20pg%2024>.
- ¹⁰⁰ Solaro, *Women in the Line of Fire*, 241.
- ¹⁰¹ Commission on the Assignment of Women in the Armed Forces, C-10.
- ¹⁰² Commission on the Assignment of Women in the Armed Forces, C-45.
- ¹⁰³ Petronio, “Get Over It! We Are Not Created Equal.” Of note, during email discussions with Capt Petronio, she confirmed that she acquired this data while working at OCS. OCS maintains a centralized log of medical attrition rates and reasons.
- ¹⁰⁴ Petronio, “Get Over It! We Are Not Created Equal.” Of note, during email discussions with Capt Petronio, she confirmed that, although TBS does not keep a centralized log of attrition rates and reasons, the data was available through compiling other medical logs and rosters. She compiled the attrition rates and reasons manually.
- ¹⁰⁵ Philip Belmont, Gens Goodman, Brian Waterman, Kent DeZee, Rob Burks, and Brett Owens, “Disease and Non-battle Injuries Sustained by a U.S. Army Brigade Combat Team During Operation Iraqi Freedom,” *Military Medicine*, vol. 175 (July 2010): 471, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA535873,%20pg%20471>.
- ¹⁰⁶ John Nettles, “USMC Women in the Service Restrictions Review (WISRR) – DACOWITZ Brief,” PowerPoint presentation, last modified September 22, 2011, Microsoft PowerPoint file, <http://dacowits.defense.gov/Reports/2011/Documents/DACOWITS%20September%202011%20Committee%20Meeting/16%20USMC%20WISR%20DACOWITS%20Brief.pdf>.
- ¹⁰⁷ Headquarters U.S. Marine Corps Division of Public Affairs, “Assignment of Women to Ground Combat Units” (Public Affairs Guidance, version dated January 29, 2013), 5.
- ¹⁰⁸ Headquarters U.S. Marine Corps Division of Public Affairs, 5.
- ¹⁰⁹ Tuten, “The Argument Against Female Combatants,” 248.
- ¹¹⁰ Lolita Baldor, “Women In Combat: Panetta Says It Will Strengthen U.S. Military,” *TimesCall.com*, last modified on January 24, 2013, http://www.timescall.com/news/nationworldnews/ci_22440685/women-combat-panetta-says-it-will-strengthen-u.
- ¹¹¹ Dan LaMothe, “Corps Plans For More Women In Combat Units,” *MarineCorpsTimes.com*, last modified on January 28, 2013, <http://www.marinecorpstimes.com/prime/2013/01/PRIME-marine-corps-preps-for-more-women-combat-units-020413/>.

¹¹² Susanne Schafer, “First female general to lead Parris Island Marine base says women can handle combat,” *washingtonpost.com*, last modified on March 16, 2013, http://www.washingtonpost.com/national/first-female-general-to-lead-parris-island-marine-base-says-women-can-handle-combat/2013/03/16/ce535ea0-8e49-11e2-adca-74ab31da3399_story.html.

¹¹³ David Burrelli, “Women in Combat: Issues for Congress,” Congressional Research Report for Congress, (December 13, 2012), 10.

¹¹⁴ Browne, *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation’s Wars*, 100.

¹¹⁵ Tuten, “The Argument Against Female Combatants,” 252.

¹¹⁶ Lolita Baldor, “Panetta Says Women In Combat Is A Strength,” *Yahoo.com*, last modified on January 24, 2013, <http://news.yahoo.com/panetta-says-women-combat-strength-150027932--politics.html>.

¹¹⁷ Morton White, *Philosophy, the Federalist, and the Constitution* (New York, NY: Oxford University Press, 1987), 45. Italics added for emphasis.

¹¹⁸ “WAAC/WAC,” accessed February 09, 2013, <http://www.army.mil/women/wac.html>.

¹¹⁹ “WAAC/WAC,” *Women in the U.S. Army*, accessed February 09, 2013, <http://www.army.mil/women/wac.html>.

¹²⁰ “World War II era WAVES Overview and Special Image Selection,” *Naval History and Heritage Command*, accessed March 15, 2013, <http://www.history.navy.mil/photos/prs-tpic/females/wave-ww2.htm>.

¹²¹ “Women’s Auxiliary Ferrying Squadron,” *National Museum of the U.S. Air Force*, accessed March 15, 2013, <http://www.nationalmuseum.af.mil/factsheets/factsheet.asp?id=1563>.

¹²² “WAAC/WAC,” *Women in the U.S. Army*, accessed February 09, 2013, <http://www.army.mil/women/wac.html>.

¹²³ “History of the Women’s Marines,” Women’s Marines Association, accessed March 15, 2013, http://www.womenmarines.org/wm_history.aspx?AspxAutoDetectCookieSupport=1.

¹²⁴ “Women’s Armed Services Integration Act,” *Encyclopedia Britannica*, accessed February 09, 2013, <http://www.britannica.com/EBchecked/topic/647096/Womens-Armed-Services-Integration-Act>.

¹²⁵ “A Chronology of the United States Marine Corps 1947-1964 Volume III,” Marine Corps Historical Reference Pamphlet, accessed March 15, 2013, 7, <http://www.marines.mil/Portals/59/Publications/A%20Chronology%20of%20the%20United%20States%20Marine%20Corps%201947-1964%20%20PCN%2019000318200.pdf>.

¹²⁶ *Women’s Armed Services Integration Act*, U.S. code, title 10, section 6015 (1956).

¹²⁷ General Accounting Office, *Information on DOD’s Assignment Policy and Direct Ground Combat Definition* (Washington, DC: U.S. General Accounting Office, 1998), 2.

¹²⁸ Commission on the Assignment of Women in the Armed Forces, 45.

¹²⁹ Kristen Culler, “The Decision to Allow Military Women Into Combat Positions: A Study in Policy and Politics” (master’s thesis, Naval Postgraduate School, 2000), 100.

¹³⁰ General Accounting Office, *Information on DOD’s Assignment Policy and Direct Ground Combat Definition*, 2.

¹³¹ General Accounting Office, *Information on DOD’s Assignment Policy and Direct Ground Combat Definition*, 2.

¹³² Paul Cawkill, Alison Rogers, Sarah Knight, and Laura Spear, *Women in Ground Close Combat Roles: The Experiences of other Nations and a Review of the Academic Literature* (Defence Science and Technology Laboratory, 2009), 32.

¹³³ Nancy Goldman, "Introduction," in *Female Soldiers – Combatants or Noncombatants?*, *Historical and Contemporary Perspectives*, ed. by Nancy Goldman (Westport, CT: Greenwood Press, 1982), 5.

¹³⁴ Goldman, "Introduction," 5.

¹³⁵ Anne Griesse and Richard Stites, "Russia: Revolution and War," in *Female Soldiers – Combatants or Noncombatants?*, *Historical and Contemporary Perspectives*, ed. by Nancy Goldman (Westport, CT: Greenwood Press, 1982), 69.

¹³⁶ Earl Swift, *Where They Lay: Searching for America's Lost Soldiers* (New York, NY: Mariner Books, 2003), 196.

¹³⁷ "Past Imperfect," Mike Dash, *Dahomey's Women Warriors*, last modified, September 23, 2011, <http://blogs.smithsonianmag.com/history/2011/09/dahomeys-women-warriors/>.

¹³⁸ Browne, *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation's Wars*, 65.

¹³⁹ Robert Edgerton, *Warrior Women: The Amazons of Dahomey and the Nature of War* (Boulder, CO: Westview Press, 2000), 102.

¹⁴⁰ *Daily News*, "The King of Dahomey," *The Sydney Morning Herald*, September 28, 1863, <http://news.google.com/newspapers?nid=1301&dat=18630928&id=gcgQAAAAIBAJ&sjid=FpEDA AAAIBAJ&pg=5227,492234>, 3.

¹⁴¹ Tuten, "The Argument Against Female Combatants," 239.

¹⁴² "A Woman of Valor," Badr Ben-Ari, *Israeli Defense Forces*, last modified August 01, 2007, http://dover.idf.il/IDF/English/News/Up_Close/2007/08/0101.htm.

¹⁴³ Van Creveld, *Men, Women, and War: Do Women Belong in the Front Line?*, 185.

¹⁴⁴ Van Creveld, *Men, Women, and War: Do Women Belong in the Front Line?*, 188.

¹⁴⁵ "Skirting History," Lauren Feldinger, *The Jerusalem Post*, last modified September 18, 2008, <http://www.jpost.com/Magazine/Features/Article.aspx?id=114834>.

¹⁴⁶ *The Washington Times*, "A Promotion for Female Soldiers," *WashingtonTimes.com*, December 30, 2003, <http://www.washingtontimes.com/news/2003/dec/30/20031230-112834-9968r/?page=all>.

¹⁴⁷ Cawkill, *Women in Ground Close Combat Roles*, 25.

¹⁴⁸ Tia Goldenberg, "Caracal Battalion, Israel's Only Co-Ed Combat Unit, Proves Its Worth," *HuffingtonPost.com*, September 24, 2012, http://www.huffingtonpost.com/2012/09/24/caracal-battalion-israel-co-ed-combat-unit_n_1909132.html.

¹⁴⁹ Yaakov Lapin, "IDF Soldiers Attacked on Egypt Border, Kill 3 Terrorists," *The Jerusalem Post*, last modified September 21, 2012, <http://www.jpost.com/Defense/Article.aspx?id=285802>.

¹⁵⁰ Gil Ronen, "General Who Supported Women in Combat Says: 'No More!'," *IsraeliNationalNews.com*, last modified July 23, 2011, <http://www.israelnationalnews.com/News/News.aspx/146001#.UOIWO3PjIF8>.

¹⁵¹ Ronen, "General Who Supported Women in Combat Says: 'No More!'," *IsraeliNationalNews.com*.

¹⁵² Ronen, "General Who Supported Women in Combat Says: 'No More!'," *IsraeliNationalNews.com*.

¹⁵³ *The Washington Times*, "A Promotion for Female Soldiers."

¹⁵⁴ Molly Moore, "Canada Puts Women on Front Line Combat: Many governments send women into combat during war. Canada, however, is recruiting women during peacetime," *LosAngelesTimes.com*, last modified November 23, 1989, http://articles.latimes.com/1989-11-23/news/vw-402_1_women-recruits, 1; Cawkill, 17.

¹⁵⁵ Cawkill, *Women in Ground Close Combat Roles*, 19.

¹⁵⁶ Stephanie Gutman, *The Kinder, Gentler Military: How Political Correctness Affects Our Ability To Win Wars* (San Francisco, CA: Encounter Books, 2000), 266.

¹⁵⁷ Moore, "Canada Puts Women on Front Line Combat," 2.

¹⁵⁸ Marcia Kaye, "U.S. to allow women into combat — a move Canada made decades ago," *TheStar.com*, last modified January 30, 2011, http://www.thestar.com/news/insight/2011/01/30/us_to_allow_women_into_combat_a_move_canada_made_decades_ago.html.

¹⁵⁹ Alistair MacDonald, "Canada Offers Lessons On Women In Combat," *The Wall Street Journal*, last modified on January 24, 2013, <http://online.wsj.com/article/SB10001424127887323539804578262002928698208.html>.

¹⁶⁰ MacDonald, "Canada Offers Lessons On Women In Combat."

¹⁶¹ Cawkill, *Women in Ground Close Combat Roles*, 8.

¹⁶² Australian Army Headquarters, *Army Implementation Plan for the Removal of Gender Restrictions*, CA Directive 15/12, 2.

¹⁶³ Australian Army Headquarters, *Enhancing Capability Through Gender Diversity Introduction*, CA Directive 16/12, 1.

¹⁶⁴ "Australia lifts ban on women in military combat roles," *bbc.co.uk*, last modified on September 27, 2011, <http://www.bbc.co.uk/news/world-asia-pacific-15074246>.

¹⁶⁵ Cawkill, *Women in Ground Close Combat Roles*, 16.

¹⁶⁶ Alan Silverleib and Barbara Starr, "Australia lifts restrictions for women in combat roles," *CNN.com*, last modified on September 30, 2011, <http://www.cnn.com/2011/09/27/world/asia/australia-women-combat/index.html>.

¹⁶⁷ Irene Eulriet, *Women and the Military in Europe: Comparing Public Cultures* (New York, NY: Palgrave MacMillan, 2012), 103.

¹⁶⁸ Tuten, "The Argument Against Female Combatants," 258, 255.

¹⁶⁹ Commission on the Assignment of Women in the Armed Forces, 117.

¹⁷⁰ Belmont, "Disease and Non-battle Injuries Sustained by a U.S. Army Brigade Combat Team During Operation Iraqi Freedom," 472.

¹⁷¹ Jared Serbu, Double-Digit Increase in Reported Sexual Assaults at Military Academies," *FederalNewsRadio.com*, last modified on December 26, 2012, <http://www.federalnewsradio.com/412/3171839/Double-digit-increase-in-reported-sexual-assaults-at-military-academies>.

¹⁷² "Brass: Having Women In Combat Will Help Stop Sex Assault," *Marine Corps Times*, February 11, 2013, 16. Additionally, the parenthesis is added for clarification.

¹⁷³ Richette Haywood, "Should Women Share Combat Duty With Men," *Jet*, December 17, 1990, 8, <http://books.google.com/books?id=fLsDAAAAMBAJ&pg=PA8&lpg=PA8&dq=men+simply+cannot+treat+women+like+other+men.++and+it's+silly+to+think+that+a+few+months+training+can+make+them+into+sexless+soldiers&source=bl&ots=jPVIItOQyiZ&sig=GVChv9EZNhXv2mGZKQO73qj8ShQ&hl=en&sa=X&ei=fSJCUY6xI-W2wXdqoCIAw&ved=0CDQQ6AEwAQ#v=onepage&q=men%20simply%20cannot%20treat%20women%20like%20other%20men.%20%20and%20it's%20silly%20to%20think%20that%20a%20few%20months%20training%20can%20make%20them%20into%20sexless%20soldiers&f=false>.

¹⁷⁴ "Rape, Sexual Assault and Sexual Harassment in the Military: The Quick Facts," *Service Women's Action Network* (April 2012), http://servicewomen.org/wp-content/uploads/2012/06/RSASH-Quick-Facts_April-2012-FINAL.pdf.; Michael Doyle and Marisa Taylor, "Bureaucracy Has Blossomed in Military's War on Rape," *McClatchy Newspapers*, last

modified on November 29, 2011, <http://www.mcclatchydc.com/2011/11/28/v-print/131524/bureaucracy-has-blossomed-in-militarys.html>.

¹⁷⁵ As alluded to in the preface, there are numerous ongoing issues related to sexual assaults in the armed services. According to DoD's 2012 Annual Report on Sexual Assault, there has been a steady rise in assaults since 2007. There are approximately 3,000 reported cases annually, while recent reports indicate up to 80% of assaults are not reported; this suggests upwards of 19,000 actual sexual assaults every year. Congress is taking an ever increasing interest in these cases, and often from a highly emotionally charged and, at times, uneducated point of reference. This was apparent in a recent exchange in the Senate Arms Committee on C-SPAN (March 5, 2013); the briefing was for Central and Special Operations Commands leaders to testify on funding for 2014 military programs. However, Senator Claire McCaskill (D – Missouri), took the opportunity of the moment, which essentially surprised Gen James Mattis, to pose totally unrelated questions regarding a specific sexual assault case in the military (not in his chain of command) – a case he had no familiarity with. Based on this highly publicized (and perhaps singular) case, there is a push to disallow military convening and supervisory authority from reviewing and reducing/overturning court martial convictions. This type of Congressional concern, attendant publicity, and subsequent proposed changes (at times reactive, vice contemplative) to the UCMJ is just an example of other ramifications when women and men train together. A case can be made that every MOS needs both men and women to not only perform requirements, but also fill the structure of an all-volunteer force; however, based on the unique demands of the infantry, a case can be argued that women are neither preferred nor needed for either. For this paper, the continual reports of ongoing sexual crime related issues are too numerous to mention. From rampant sexual activity reports on the “love boat” during Desert Shield/Desert Storm, to more contemporary assaults at the USAF Academy, the USA and USAF basic training, and in every operational area, sexual issues are real and are examples of a cost/benefit consideration of sexual integration within the infantry.

Annotated Bibliography

Primary Sources

Australian Army Headquarters. *Army Implementation Plan for the Removal Of Gender Restrictions*. CA Directive 15/12, July 23, 2012.

This Australian Army directive provided valuable information and rationale concerning removing restrictions and enabling the integration of women into combat MOSs. The focus was through the implementation of Physical Employment Standards, for the purpose of enhancing their Army's warfighting capability.

———. *Enhancing Capability Through Gender Diversity Introduction*. CA Directive 16/12, August 20, 2012.

The purpose of this Australian Army directive was to detail and assign responsibilities to increase the participation of women in Army. The mission of the gender plan, in order to enhance capability, was to increase the representation of women in the Army to 12% by 2014. This report provided insight into the true purpose of gender integration into their combat arms MOSs.

Baumann, Michael A. *Adjust Fire: Transforming to Win in Iraq*. Roseville, MN: Birch Grove Publishing, 2008.

The author is a retired Army LTC, and former Artillery officer who commanded a Field Artillery battalion in Iraq while executing an infantry-like mission. Baumann attempts to explain the intricate, convoluted, and complex task his battalion and the Army, as a whole, had in Iraq. He dedicates one chapter to how women performed in his unit, and this was the main source of information sought from this book.

Bellavia, David. *House to House: An Epic Memoir of War*. New York, NY: First Free Press, 2007.

The author is a former SSG in the Army infantry. This book is a personal account of his experiences during house-to-house warfare during the Battle of Fallujah. The information was vivid and the accounts of hand-to-hand combat were raw, and of particular value to the applicability of the debate on women in close combat.

Clausewitz, Carl von. *On War*. Edited and Translated by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976/1984.

Clausewitz was a noted Prussian soldier and military theorist. His book is considered to be, by many, the defining or seminal work for the Marine Corps' warfighting doctrine. Clausewitz provides invaluable information regarding the nature and character of warfare, and how 21st century professionals ascertain its applicability to today's operating environment.

Commission on the Assignment of Women in the Armed Forces. *Women In Combat: Report to the President*. New York, NY: Brassy's (US), 1993.

The collaborators of this report were a mix of 15 men and women, ranging from retired and active duty General Officers, to professors, and noted feminists and anti-feminists. The report provides a review of laws and policies from 1992 and recommendations for the future assignment of women in the armed forces. This is one of the most thorough and unbiased reports available regarding physical and historical analysis of men and women related to combat.

Harman, Everett, Peter Frykman, Christopher Palmer, Eric Lammi, Katy Reynolds, and Verne Backus. "Effects of a Specifically Designed Physical Conditioning Program on the Load Carriage and Lifting Performance of Female Soldiers." U.S. Army Research Institute of Environmental Medicine, Technical Report No. T98-1 (Natick, MA, 1997): 46.
<http://stinet.dtic.mil>.

Six medical professionals exhaustively detail a study of forty-six women who were evaluated to determine whether their ability to perform "very heavy" Army jobs could be improved by a specially designed 24-week physical training program administered within normal Army time constraints. It provided significant information on how women can improve, but also decline, in physical capacity if introduced to a rigorous physical conditioning program.

Harrell, Margaret C., Laura Werber Castaneda, Peter Schirmer, Bryan W. Hallmark, Jennifer Kavanagh, Daniel Gershwin, and Paul Steinberg. *Assessing The Assignment Policy for Army Women*. Santa Monica, CA: Rand Corporation, 2007.

This was a report sponsored by the Under Secretary of Defense and was intended to provide input to DoD decision-making regarding the use of BCTs in operations in Iraq. It was helpful in understanding how the Army was able to put women in combat zones and attach them to combat arms units below the brigade level without technically disobeying the CEP policy.

Headquarters Department of the Army. *Infantry Platoon and Squad*. FM 7-8 w/Ch1. Washington, DC: U.S. Department of the Army, March 1, 2001.

This publication provides basic tactics, techniques, and procedures for the U.S. Army infantry at the platoon and squad level. The document is helpful in determining the basic purpose of small unit infantry and its mission.

Headquarters U.S. Marine Corps. *Marine Rifle Squad*. MCWP 3-11.2 w/Ch 1. Washington, DC: Headquarters U.S. Marine Corps, November 27, 2002.

This publication is essentially the same as FM 7-8 w/Ch1, but mainly written with Marine Corps specific verbiage. The same information was gleaned from this document.

———. *Warfighting*. MCDP 1. Washington, DC: Headquarters U.S. Marine Corps, June 30, 1991.

This publication provides the authoritative basis on the philosophy for how the Marine Corps fights and prepares to fight. It is rooted in Clausewitz, and there is also an indirect Sun Tzu aspect to it, which provides an understanding of how the Marine Corps understands war and its nature and character.

Meyer, Dakota and Bing West. *Into the Fire: A Firsthand Account of the Most Extraordinary Battle in the Afghan War*. New York, NY: Random House Publishing Group, 2012.

The author is a former infantry Sergeant in the Marine Corps. This book is a personal account of his life before, during, and after his military service. Meyer's training as an infantryman and a sniper, as well as his chaotic ordeal in the Ganjagal Valley in Afghanistan and pitched hand-to-hand fight to the death with an insurgent, were particularly relevant to this paper.

Military Leadership Diversity Commission. *From Representation to Inclusion: Diversity Leadership for the 21st Century Military*. Arlington, VA, 2011.

There were approximately 30 personnel responsible for the contents of this report; however, it does not disclose what the backgrounds were of each member. The Commission was asked to conduct a comprehensive evaluation and assessment of policies and practices that shape diversity among military leaders. The report was useful in understanding the civilian pressures and influences to make changes to the military based on a reduction of socially perceived gender barriers.

U.S. Army Center for Lessons Learned. "The Modern Warrior's Combat Load: Dismounted Operations in Afghanistan, April – May, 2003" (December, 2003).

A team of experienced infantrymen collected the data and observations reported in this study while accompanying Task Force Devil, 82nd Airborne Division, on a deployment to Afghanistan. The data provided an invaluable snapshot of the modern dismounted Soldier's combat load and is a mirror of the light infantry today as it fights the war in Afghanistan.

U.S. Department of Defense. *Report To Congress On the Review of Laws, Policies and Regulations Restricting the Service of Female Members in the U.S. Armed Forces*. Washington, DC: Office of the Under Secretary of Defense for Personnel and Readiness, February 2012.

This report provides a review of laws, policies, and regulations that restrict the service of female members. It also provides a determination regarding the changes needed to ensure that female members have an equitable opportunity to compete for promotions and assignments and further excel in the military. This report summarizes the history of the CEP, other reports that recommend its repeal, as well as the individual service recommendations on the repeal of CEP. In the report, dated February 2012, the Marine Corps specifically lists six previously closed MOSs that *will* be opened to females. Of note, this is more than one year before "physical testing" is to be conducted and evaluated to determine which MOSs should be opened to females (physical testing is scheduled to commence in the summer of 2013). The inference is the decision as to which MOSs will be opened has already been made one year prior to official testing.

———. *Qualification Standards for Enlistment, Appointment, and Induction*. Instruction 1304.26, September 20, 2005.

This instruction provided key information on what exclusions are currently in existence in the military, particularly regarding mental aptitude and age. This instruction is relevant to relating current exclusions to the female infantry exclusion debate.

U.S. General Accounting Office. *Gender Issues: Information to Assess Servicemembers' Perceptions of Gender Inequities Is Incomplete*. Washington, DC: U.S. General Accounting Office, 1998.

This report is a conglomeration of eight committees commissioned to study inequalities or perceptions of inequalities in the treatment of men and women in the armed forces. Although the conclusion was incomplete on the findings, the report was useful in providing information on the history of women's role in the military, especially the Gulf War, i.e., Desert Shield/Desert Storm.

———. *Information on DOD's Assignment Policy and Direct Ground Combat Definition*. Washington, DC: U.S. General Accounting Office, 1998.

Approximately eight commissioners (of unknown background) created this report, which focuses primarily on the MOSs that were closed due to the CEP and the justifications for their closure, the DoD's rationale for the CEP, and the character of military warfare in the future related to the CEP, and whether the CEP is likely to become outdated. The report was not to determine the appropriateness of the CEP, only to gather evidence.

Tzu, Sun. *The Art of War*. Translated by Samuel B. Griffith. New York, NY: Oxford University Press, 1963.

Tzu was an ancient Chinese military general, strategist and philosopher who is traditionally believed to be the author of *The Art of War*. This treatise is the first known study of the planning and conduct of military operations. It is laid out in short and succinct essays that not only detail battlefield maneuvers, but also relevant economic, political, and psychological factors. It was useful in understanding the purpose and character of warfare.

Secondary Sources

Belmont Jr., Philip J., Gens P. Goodman, Brian Waterman, Kent DeZee, Rob Burks, and Brett D. Owens. "Disease and Non-battle Injuries Sustained by a U.S. Army Brigade Combat Team During Operation Iraqi Freedom." *Military Medicine*, Vol. 175 (July 2010): 472. <http://www.dtic.mil>.

Six civilians and professors wrote this article, and it is an assemblage of primarily female non-battle injuries sustained by a BCT in Iraq. The information contained within was useful in attaining information on musculoskeletal injuries and pregnancy related issues in a combat zone.

Blacker, BSc, Sam D., David M. Wilkinson, PhD, and Mark P. Rayson, PhD. "Gender Differences in the Physical Demands of British Army Recruit Training." *Military Medicine*, Vol. 174 (August 2009): 814-815. <http://search.ebscohost.com>.

This report, compiled by three professors, examined gender differences in the physical demands of British Army recruits in training. What was particularly enlightening was the information provided regarding the results of men who trained with women, and the comparative results of men who trained exclusively with other men.

Blanton, DeAnne and Lauren M. Cook. *They Fought Like Demons: Women Soldiers in the American Civil War*. Baton Rouge, LA: Louisiana State University Press, 2002.

Lauren Cook is special assistant to the chancellor for university communications at Fayetteville State University in North Carolina and DeAnne Blanton is a senior military archivist at the National Archives specializing in nineteenth-century U.S. Army records. The book provides a thorough account of women (estimates of almost 400) who disguised themselves and entered the war, serving in combat and non-combat units. Although an exhaustive book, it does not focus or provide detailed evidence as to how women physically held up as a whole, but primarily emphasizes that women served in the civil war and should be recognized for it.

Browne, Kingsley. *Co-Ed Combat: The New Evidence that Women Should Not Fight the Nation's Wars*. New York, NY: The Penguin Group, 2007.

The author is a university law professor and former Supreme Court Clerk, with other books on gender issues. Browne attempts to illustrate the biological differences between men and women as fact, not social constructions. This book aided in researching many biological reasons that suggest women should not be in close combat.

Burrelli, David F. "Women in Combat: Issues for Congress." Congressional Research Report for Congress, December 13, 2012.

The author works as a specialist in Military Manpower Policy. The paper describes a summary of CEP exclusion history, recent Congressional Commission recommendations (i.e., MLDC), and the summary of the 2012 Office of the Under Secretary of Defense (Personnel and Readiness) report referenced in this paper. This provided a succinct resource for many of the current issues on this debate.

Cambridge, Joshua S. *War and Gender*. Cambridge, UK: Cambridge University Press, 2001.

Goldstein is a professor at the International Relations at American University. He attempts to assess possible explanations for the almost total exclusion of women from combat forces through history and other cultures. There is plenty of information regarding physical characteristics, but most of this information was found in other studies that were cited in this paper.

Cawkill, Paul, Alison Rogers, Sarah Knight, and Laura Spear. *Women in Ground Close Combat Roles: The Experiences of other Nations and a Review of the Academic Literature*. Defence Science and Technology Laboratory, 2009.

The three authors work with the British Defence Science and Technology Laboratory (Dstl) They were tasked by Deputy Chief of the Defence Staff (Personnel) to consider the experiences of other nations in employing women in ground close combat

roles/environments, and to undertake a literature review of the recent research on the effectiveness of mixed gender teams. This report was a considerable source of information regarding other states' armed forces and why or why they did not employ females in the combat arms or infantry.

Culler, Kristen W. "The Decision to Allow Military Women Into Combat Positions: A Study in Policy and Politics." Master's thesis, Naval Postgraduate School, 2000.

Culler reviews and evaluates the decision to rescind the laws excluding women from combat aviation and to see how Congress handled a sensitive topic with far-reaching social, military, and readiness implications. This was yet another source that provided significant detail on the CEP and historical timelines of women in combat.

Dever, John P. and Maria C. Dever. *Women and the Military*. Jefferson, NC: McFarland & Company, Inc., Publishers, 1995.

Little was uncovered about the authors of this book. The short volume details approximately 100 women and their impacts in or with the military over the course of world history. Other than the preface and the foreword, which provides some information on the history of women in the U. S. military, the book provided little benefit to the research of this paper.

Edgerton, Robert B. *Warrior Women: The Amazons of Dahomey and the Nature of War*. Boulder, CO: Westview Press, 2000.

Edgerton is the author of numerous books and teaches at the UCLA School of Medicine. He describes the history of the Amazon women of the West African tribe in Dahomey, specifically their recruitment, training, and battle experience. This book provided insight to the real reasons these women were combatants, such as a limited male population due to the slave trade and previous war.

Eulriet, Irene. *Women and the Military in Europe: Comparing Public Cultures*. New York, NY: Palgrave MacMillan, 2012.

Irène Eulriet is research fellow at the Institut de Recherche Stratégique de l'École militaire (Irsem) in Paris, France. Eulriet explores the policies adopted with women in the military in the United Kingdom, Germany, and France over the past 20 years, as it relates to the European Union. It was useful in determining the general reasoning for why many European countries implement women the way they do in their militaries.

Fenner, Lorry M. and deYoung, Marie E. *Women In Combat: Civic Duty or Military Liability?* Washington, D.C.: Georgetown University Press, 2001.

Lorry M. Fenner was a Colonel in the USAF and the deputy commander of the 694th Intelligence Group. Marie deYoung is a professor of sociology at Grand Valley State University and a former chaplain in the U.S. Army. This book is basically a compare and contrast. Essentially Fenner calls for opening all aspects of military service to women, and deYoung argues the opposite, citing the best interest of both sexes and military efficiency. It was especially useful in understanding two primary arguments that prevail today.

Ficarrotta, J. Carl. *Kantian Thinking About Military Ethics*. Washington, D.C.: Ashgate Publishing Limited, 2010.

Ficarrotta is a Professor of Philosophy at the United States Air Force Academy and writes about how a follower of Kantian ethics might address controversial questions in the profession of arms. There is a small section, which I did not find useful to cite, on the moral dilemma of military exclusions for the purpose of efficiency and thus, neglecting some potentially qualified candidates.

Fidell, Eugene R. "Going on Fifty: Evolution and Devolution in Military Justice." In *Evolving Military Justice*, edited by Eugene R. Fidell and Dwight H. Sullivan. Annapolis, MD: Naval Institute Press, 2002.

Fidell is an American lawyer and notable expert in military law. He is currently Senior Research Scholar in Law and Florence Rogatz Visiting Lecturer in Law at Yale Law School. This section of the book, which is overall a historical account of the development military justice, was helpful in understanding the UCMJ and how it relates to the Constitution and Supreme Court cases.

Francke, Linda Bird. *Ground Zero: The Gender Wars in the Military*. New York, NY: Simon & Schuster, 1997.

Francke is a professional journalist who appears to have written several books, but only one on women in the military. She illuminates the much talked about topics of equal opportunity, hostile male culture, and the problems that women face in the military. This book provided many of the same questionable and impassioned arguments from perspectives outside the military found in other material, such as Solaro.

Gemmell, MSc MFOM, Ian. "Injuries Among Female Army Recruits: a Conflict of Legislation." *Journal of the Royal Society of Medicine*, Vol. 95 No. 1 (January 2002).
<http://jrsm.rsmjournals.com/content/95/1/23.full.pdf+html,%20pg%2024>.

The author of this report is unknown, but presumably an employee of the Army Personnel Centre in England. Gemmell studies the effects that gender neutral training had on females after the policy was changed from a gender fair standard. It was beneficial in seeing longer-term studies that indicate an increase in injuries when women are trained to the standards of men.

Goldman, Nancy Loring. "Introduction." In *Female Soldiers – Combatants or Noncombatants? Historical and Contemporary Perspectives*, edited by Nancy Loring Goldman. Westport, CT: Greenwood Press, 1982.

Goldman was a research associate at the University of Chicago and has numerous other publications on women in combat. This book of several volumes covers the topic of women in combat over 11 different countries; it also addresses the U.S., its views and its problems. It is useful in understanding the limited and temporary historical role of women used in other countries.

Gregor, Dr. William J. "Why Can't Anything Be Done? Measuring Physical Readiness of Women

for Military Occupations.” Paper presented at the International Biennial Conference of the Inter-University Seminar on Armed Forces and Society, October 21-23, 2011.
<http://www.thelizlibrary.org/undelele/1110-GregorW.pdf>.

Dr. William J. Gregor is a Professor of Social Sciences for the School of Advanced Military Studies (SAMS) at the U.S. Army Command and General Staff College. Gregor attempts to illuminate government policies for assignment of women in the armed forces that have focused on social dimensions of the military vice functional requirements. It provides long-term physical study data on the differences of men and women physically.

Griesse, Anne Eliot and Richard Stites. “Russia: Revolution and War.” In *Female Soldiers – Combatants or Noncombatants? Historical and Contemporary Perspectives*, edited by Nancy Loring Goldman. Westport, CT: Greenwood Press, 1982.

Griesse was an analyst for the DoD and is an expert in Russian Area Studies and Soviet culture in Moscow. This essay details the history of the use of women in close combat, especially during World War II, and is helpful in understanding why they were used and why their use was discontinued.

Gutmann, Stephanie. *The Kinder, Gentler Military: How Political Correctness Affects Our Ability To Win Wars*. San Francisco, CA: Encounter Books, 2000.

Gutmann is a professional journalist who has written books on the U.S. military and the conflicts in the Middle East. This book is essentially a counter to Linda Francke’s *Ground Zero*, but with much less rhetoric and much more evidence gathered from first hand travels. Gutmann essentially details how political correctness has overtaken the military since the Tailhook scandal in the early nineties and how “reformers” are intentionally trying to rid the military of its masculine character. Although most of the book was political conjecture, she presents relevant information on the problems the Canadian Forces are having in keeping women in the infantry.

Haywood, Richette. “Should Women Share Combat Duty With Men,” *Jet*, December 17, 1990, 8 – 12.

<http://books.google.com/books?id=fLsDAAAAMBAJ&pg=PA8&lpg=PA8&dq=men+simply+cannot+treat+women+like+other+men.++and+it's+silly+to+think+that+a+few+months+training+can+make+them+into+sexless+soldiers&source=bl&ots=jPVIItOQyiZ&sig=GVChv9EZNhXv2mGZKQO73qj8ShQ&hl=en&sa=X&ei=fSJCUY6xI-W2wXdqoCIAw&ved=0CDQQ6AEwAQ#v=onepage&q=men%20simply%20cannot%20treat%20women%20like%20other%20men.%20%20and%20it's%20silly%20to%20think%20that%20a%20few%20months%20training%20can%20make%20them%20into%20sexless%20soldiers&f=false>.

The author was a veteran associate editor of *Jet* Magazine. The article discusses whether women would be a combat liability. She presents both pro and con arguments, and suggests that a pilot program to allow women in the infantry would be a real step toward true equality. The article was useful in providing another viewpoint on pro and con arguments for women in the infantry.

Herbert, Melissa S. *Camouflage Isn't Only for Combat: Gender Sexuality, and Women in the Military*. New York, NY: New York University Press, 1998.

The author was an Assistant Professor of Sociology at Hamline University in Minnesota. This book is essentially a report on what women feel what its like to be in the military. She interviewed over 300 women and describes how they negotiate an environment that has been structured and defined as masculine. This book was not particularly useful for this paper.

Holmstedt, Kirsten. *Band of Sisters: American Women at War in Iraq*. Mechanicsburg, PA: Stackpole Books, 2007.

The author is a professional journalist and this was the first of her two books about women in combat. Holmstedt highlights the impressive achievements of several women in a combat zone in Iraq, and cites pilots and females in Humvees as proof that women are in combat and the CEP should be repealed. One can be left with a misleading impression that these outstanding females performed just as equivalent as infantrymen. This book provided many of the same counter arguments for repealing the CEP without addressing the ramifications of women in the infantry and efficiency.

———. *The Girls Come Marching Home: Stories of Women Warriors Returning from the War in Iraq*. Mechanicsburg, PA: Stackpole Books, 2009.

The author is a professional journalist and this was the second of her two books about women in combat. Holmstedt focuses on a handful of females who have served in Iraq, with the intent of highlighting their battlefield experiences and mental and physical wounds despite the ban on women serving in combat arms units. This book was not cited, as it was not useful regarding women in the infantry and efficiency.

Mazur, Diane H. *A More Perfect Military: How the Constitution Can Make Our Military Stronger*. New York, NY: Oxford University Press, 2010.

Mazur paints a fragile civil-military relationship that is widening because fewer Americans are serving in the all-volunteer army. She also highlights the Supreme Court's more recent decisions as undermining the military's traditional relationship to law and the Constitution. Mazur provided plenty of information on the Constitution and early Supreme Court cases that solidified a required distinctive military culture.

Mitchell, Brian. *Weak Link: The Feminization of the American Military*. Washington, D.C.: Regnery Publishing Inc., 1989. Quoted in Leisa D. Meyer. *Creating G.I. Jane: Sexuality and Power in the Women's Army Corps during World War II*. New York, NY: Columbia University Press, 1996.

The author is a former decorated Army infantry officer and political theorist, and this is his first of at least two books on women integration into the military. This book seems to be the opposite extreme of Francke's work, *Ground Zero*. Mitchell focuses primarily on offering more opinion (whether true or not) on how the military has been affected by "feminization" from the service academies to Navy ships. An attempt was made not to cite Mitchell because he does not support most of his opinions with indisputable facts or studies more prevalent in his second book.

- . *Women in the Military: Flirting with Disaster*. Washington, D.C.: Regnery Publishing Inc., 1998.

The author is a former decorated Army infantry officer and political theorist and this is his second of at least two books on women integration into the military. This book, although slightly less opinionated than his first, provides more substantial evidence in attempting to refute the most common arguments against women in combat. The book is more useful as it cites scientific or factual reviews from most of the studies and commissions that were examined on this issue up to its publication. Again, an attempt was made not to cite Mitchell because his opinions could overshadow facts, even though he largely provides solid evidence to support them by citing studies and commissions.

- Moir, Anne, Ph.D. and David Jessel. *Brain Sex*. New York, NY: Dell Publishing, 1992.

Moir is an internationally known Neuropsychologist, author of numerous books, and the Founder of Brainsex Matters website. Jessel is a broadcast journalist and writing partner. This book extensively describes the basic biological differences between the male and female brain that make it impossible for the sexes to share equal emotional or intellectual qualities. Moir also highlights very useful data on the effects of testosterone on the male and female brain and how this relates to aggression, focus, and physical superiority.

- Moore, Molly. "Canada Puts Women on the Front Line." *Los Angeles Times*, November 28, 1989, http://articles.latimes.com/1989-11-23/news/vw-402_1_women-recruits (accessed, December 31, 2012).

Moore is currently the Senior Vice President of Sanderson Strategies Group, and was a war correspondent, and chief Pentagon correspondent for the *Washington Post*. She highlights Canada's evolving history of women in the CF and combat arms. It was useful in gaining information on the many issues being faced by the CF in terms of getting women into the infantry and keeping them there.

- Morris, Lawrence J. *Military Justice: A Guide to the Issues*. Santa Barbara, CA: ABC-CLIO, LLC., 2010.

Morris is a recently retired U.S. Army Colonel who was a military lawyer. His volume provides comprehensive information about the military justice system and explains the system through understandable scenarios. He provided good detail about military justice beginnings, its relation to the Constitution, and about Supreme Court rulings on deference and separate society. Similar information was found and used in Fidell's *Evolving Justice*.

- Murdock, Riley W. "Rescinding the Ground Combat Exclusion Policy." Master's thesis, USMC Command and Staff College, 2011.

LCDR Murdock wrote this thesis for Command and Staff in 2011, and is a member of the U.S. Navy. Murdock seeks to assess the potential implementation of the MLDC's recommendation in terms of the best interests of the U.S. military, in which Murdock argues in favor of it citing improved readiness by increasing the talent pool for recruiting and assignments, more efficient and flexible operations, and increased morale. This paper was

useful in understanding reasonable societal logic for CEP repeal, but it failed to address the impacts on the infantry or close combat.

Nettles, Col. John. "USMC Women in the Service Restrictions Review (WISRR) – DACOWITZ Brief." PowerPoint presentation, last modified September 22, 2011. Microsoft PowerPoint file.
<http://dacowits.defense.gov/Reports/2011/Documents/DACOWITS%20September%202011%20Committee%20Meeting/16%20USMC%20WISR%20DACOWITS%20Brief.pdf>.

The author is an active duty Marine Colonel and currently the Deputy Director of Manpower, Plans & Policy Division. This PowerPoint is the summary of women's restrictions in combat/MOSs within the Marine Corps. DoD required Service position for Congressional Report and this is part of the OPTs result. This brief was useful in understanding female attrition rates, overall concerns, as well as recommendations for further, longer review.

Nunn, Sam. "The Fundamental Principles of the Supreme Court's Jurisprudence in Military Cases." In *Evolving Military Justice*, edited by Eugene R. Fidell and Dwight H. Sullivan, Annapolis, MD: Naval Institute Press, 2002.

Nunn is a lawyer who served in the Coast Guard for six years and as a U.S. Senator for 24 years. This article in the volume provides a concise accounting of how the Constitution and the Supreme Court created a society apart and applies deference, as well as explains the purpose of the military and whether anyone has a right to serve in it.

O'Donnell, Patrick K. *We Were One: Shoulder to Shoulder with the Marines Who Took Fallujah*. Cambridge, MA: Da Capo Press, 2006.

O'Donnell is a combat historian who has written eight books and dozens of documentaries on modern warfare. O'Donnell provides a first-hand account of 1st Platoon, Lima Company, 3rd Battalion, 1st Marine Regiment, as he follows them through Fallujah, embroiled in some of the most intense house-to-house, hand-to-hand urban combat since World War II. The book was useful in gaining insight into infantry warfare in the COE.

Powers, Rod. *ASVAB for Dummies, Premier 3rd Edition*. Hoboken, NJ: Wiley Publishing, Inc., 2011.

Powers retired from the USAF after 22 years and has authored three books. This book provides a reference for anyone preparing to take the ASVAB, with historical analysis, study tips, and test preparation. It was helpful in summarizing much of what is in the U.S. code regarding ASVAB requirements and scoring.

Putko, Michele M. "The Combat Exclusion Policy in the Modern Security Environment." In *Women in Combat Compendium*, edited by Michele M. Putko and Douglas V. Johnson II, 27-35. Carlisle, PA: Strategic Studies Institute, 2008.
<http://www.strategicstudiesinstitute.army.mil/pubfiles/pub830.pdf> (accessed December 28, 2012).

Army Colonel Putko commanded a battalion in Operation IRAQI FREEDOM I and was the base commander of the largest logistical base in Iraq, Logistics Support Area (LSA)

Anaconda. The overall paper was written at her request by a group of military and professional personnel regarding the CEP. In her chapter, Putko argues why the CEP should be reviewed by Congress to meet the needs on the current battlefield. This compendium is useful in that it provides comprehensive information regarding the CEP.

Sanders, Albert E. and William D. Anderson, Jr. *Natural History Investigations in South Carolina: From Colonial Times to the Present*. Columbia, SC: University of South Carolina Press, 1999.

Both authors are historical philosophers with many works on history, especially in the Deep South. The authors uncover and detail the natural history of South Carolina since its inception. There is a small section on the civil war, and particularly General William Tecumseh Sherman, which I found of use.

Skaine, Rosemarie. *Women at War: Gender Issues of Americans in Combat*. North Carolina: McFarland & Company, Inc., Publishers, 1999.

Skaine is a noted sociologist and author of several books regarding women, the military, and combat. She presents historical and present-day views of the involvement of women in the military. It was useful in seeing the similar arguments brought to light as it relates to sociological theory, cohesion, ability, sexuality, equal opportunity, and family issues; however, it did not address women in the infantry and its effect on efficiency.

Solaro, Erin. *Women in the Line of Fire: What You Should Know About Women in the Military*. Emeryville, CA: Seal Press, 2006.

Solaro is a noted feminist journalist who also produces regular blogs on politics, culture, and military affairs. This book was written after she went to Iraq and Afghanistan and studied the implementation of women throughout the theater. Her book is an impassioned argument to repeal the CEP completely, not only because women are actually in combat but also because women's inferiority is a myth. She does not address implications of women in the infantry, but alludes to the fact that they should be part of it.

Swift, Earl. *Where They Lay: Searching for America's Lost Soldiers*. New York, NY: Mariner Books, 2003.

Swift has authored several books and was a journalist who followed a military team into Laos in search of a former Army helicopter pilot and his crew lost during the Vietnam War. He raises questions as to the cost/benefit purposes, and whether corruption of these governments hampers recovery efforts. He talks briefly about a legend of an all-female Vietnamese guerrilla squad of Hue City that defeated a U.S. battalion. This correlated to my search on foreign military use of women in combat.

Tuten, Jeff M. "The Argument Against Female Combatants." In *Female Soldiers – Combatants or Noncombatants? Historical and Contemporary Perspectives*, edited by Nancy Loring Goldman. Westport, CT: Greenwood Press, 1982.

Tuten retired from the U.S. Army as a LTC after 24 years as an infantry officer. His article in this volume, from experience, argues against women in combat. He covers historical uses of women, the changes in physical, psychological, and sociological issues, and

recommendations. This article was useful in understanding the impacts on women in the infantry from an experienced infantry officer.

Van Creveld, Martin. *Men, Women, and War: Do Women Belong in the Front Line?* London, UK: Cassell & Co, 2001.

Van Creveld is an internationally recognized historian and author of at least 18 books on military history and strategy; he has been on the faculty of the History Department at the Hebrew University in Israel since 1971. He argues that even though sexual equality is appropriate in civilian society, the job of waging war should be exclusively male; and to do otherwise jeopardizes national security and the soldiers to the left and right. This was useful in gaining information on social and physical issues, as well as historical military uses of women in countries such as Israel.

———. *The Culture of War*. New York, NY: Presidio Press, 2008.

Van Creveld describes the deep societal intrigue of war throughout history and cultures, and that most societies have esteemed such a culture until recently. He suggests if a state's armed forces are filled with people without a culture of war, they are doomed for defeat. It focuses more on the culture and society, rather than the individual (i.e., women or effects of women in the military or infantry).

Wise, James E. and Scott Baron. *Women at War: Iraq, Afghanistan, and Other Conflicts*. Annapolis, MD: Naval Institute Press, 2006.

Both authors are Vietnam veterans who have written several books. They focus on the war experiences of thirty American female soldiers in the war zones of Iraq and Afghanistan, but also acknowledge past wars. It provided little usefulness as to proving whether or not women should be in the infantry, since none were in that MOS. The closest account was a female army SPC temporarily attached to a SF unit in Afghanistan as a communications specialist. Of note, she recounted that women were not meant to do this (infantry) type of rigor or be in this (close combat) type of environment, and noted that the first thing handed out when she and other female medics arrived were birth control pills – in a forward combat outpost.

White, Morton. *Philosophy, the Federalist, and the Constitution*. New York, NY: Oxford University Press, 1987.

White is a historian and a Professor Emeritus at the Institute for Advanced Study in Princeton, New Jersey. In this book he analyzes the arguments employed by Hamilton, Jay, and Madison to rally support for ratification of the Constitution, as they utilized a mix of theory of knowledge, normative ethics, psychology of motivation, and metaphysics and theology influenced by Locke and Hume. This work was useful in acquiring information on the rationale for the creation of the U.S. Constitution.

Yanovich, Ran, Rachel Evans, Eran Israeli, Naama Constantini, Nurit Sharvit, Drorit Merkel, Yoram Epstein, and Daniel S. Moran. "Differences in Physical Fitness of Male and Female Recruits in Gender-Integrated Army Basic Training." *Official Journal of the American College of Sports Medicine*, Medicine & Science in Sports & Exercise (2008): S654-655.
<http://search.ebscohost.com>.

A team of medical experts from the Heller Institute of Medical Research produced this report. The study was to evaluate gender differences in physical fitness before and after a 4-month gender-integrated basic training (BT) course and to determine whether this program effectively narrowed the differences between male and female soldiers in physical fitness parameters. It was useful in determining that while some women increased in capacity, most of the men (in mixed gender groups) showed no improvement. When trained together, men do not reach full capacity, yet when women train with women, they do not show improvements that close the gender gap. The results are that gender gaps still exist and it is unlikely they can be closed.